PREFACE

It is with great pleasure, I am presenting this English version of Rasaratnasamuchchaya, a unique 13th century classic, which is a treasure house of minerals and metals, and their therapeutical usage.

To my knowledge, this is the first and the only translation available in English, of this text. Hence I am sure, this would certainly fulfil the demand of such a translation. Though, there are few Hindi versions available, they are being referred with considerable difficulty, especially in Southern parts of India. The present translation helps in removing such a difficulty.

Rasaratna Samuchchaya, as said above is a unique text dealing with minerals and metals. Hence this would be of greater interest for the indologists, historians, metallurgists, and geologists, all over India and abroad.

I would like to thank my students and colleagues, who have helped me in this venture throughout the course of its inception to completion. I also thank the proprietors of Chaukhamba Sanskrit Pratishthan for presentation and timely publication.

I am sure, this English version of Rasaratnasamuchchaya, which is in your hands, would shed a new light on the study of minerals and metals in Ayurveda.

Dr. Ashok D. Satpute

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PROLOGUE

Many scholars and indologists agree that the origin of the science of minerals and metals in India can be traced back to Vedas and to even earlier period. Many articles of different metals, minerals have been found in excavation, especially in the north-western part of India, which were infact said to be the evidences of Indus valley civilization.

Pre-historic Period

In the pre-historic period (between 4500 BC-1500 BC) both in Harappa and Mohanjodaro, apart from metallic articles like axes, daggers, arrow-heads, utensils etc., mainly made of copper, bronze, gold, silver and lead; many other materials like bitumen, cinnabar, different kinds of gem stones and the like were found. The practical arts of pottery making and painting; metallurgical practices of forging, casting, smelting, were know to the people of that period.

Vedic Period

In Vedic period (1500 BC-600 BC) we can see positive progress in the metallurgical and chemical practices. The references of many metals and minerals can be seen in all the four Vedas. Atharvaveda seems to be an important source of such knowledge, in which many chemical practices are referred for both practical arts and medicinal purpose. It is infact agreed that Atharvaveda may be the original source for the later practices of Rasashastra.

Similar chemical practices and mineralogical evidences can

be seen in Upanishads, Srutis, Brahmana Granthas and such other oriental scriptures.

Two theories viz., infra-atomic particles (*tanmatras*) of Kapila of Sankhya philosophy and atomic theory of Kanada of Vaisheshika philosophy are worth mentioning.

Ayurvedic Period

As a matter of fact the period between 600 BC and 800 AD can be identified as golden period. In the first half of this period Ayurveda flourished and many great works like Charaka Samhita and Sushruta Samhita were produced. In the latter half, a firm foundation for Rasashastra, the science of minerals and metals (with reference to their therapeutical usage) was laid.

There are number of references of metals and minerals used as medicines, available in Charaka Samhita and Sushruta Samhita. The metals like *svarna* (gold), *rajata* (silver), *ayas* (iron), *vanga* (tin), *naga* (lead) and *pittala* (brass) and minerals like *makshika* (pyrites), *manahshila* (realgar), *haratala* (orpiment), *shilajatu anjana*, *tuttha* (copper sulphate), *gairika* (red ochre) and jemstones like *vajra* (diamond), *mukta* (pearl), *pravala* (coral), *vaidurya* (cat's eye), *marakata* (emerald) etc., can be seen, being used in various diseases. Even *parada* (mercury) and *gandhaka* (sulphur) find place in these texts though the references are vague.

Arthashastra of Kautilya (321-396 BC) possesses a special place in the field of chemical knowledge, especially the metallurgical processes. A systematic and scientific account of smelting of many ores of metals can be observed in this text. *Lohadhyaksha*, an officer for metals and metal works, used to look after these operations. There are references of fermented fluids and salts too.

Evolution of Rasashastra

It is difficult to decide as to the exact period, from when the evolution of advanced Rasashastra, the science of mercury and

minerals started. However, many scholars agree that, it was not beyond the 8th century AD. In the period between 500 AD and 1600 AD, lot of activities can be seen in this field and several texts came into existence.

There are several opinions about the aims and objectives of Rasashastra. But if one scans the abundant scriptual material, it is not very difficult to narrow down the objectives to mainly two. One is to convert the base metals into gold and silver, which is generally called *lohavidya* or *rasavidya*, commonly identified as alchemy. Another aim was to achieve the perfect health and lead a long life without being afflicted with diseases. This was called *dehavidya*. However, it is difficult to understand whether both the branches of this science developed simultaneously or one after another. But, hypothetically it can be said that the *lohavidya* or alchemy was initial aim of this science, which gradually (after conviction that such an achievement is futile), developed into a life science or medical science.

There is an interesting theory described in some texts about the evolution of Rasashastra. It is evident that, as per Hindu philosophy, *moksha* or liberation was the ultimate goal of the human being. All the efforts, sciences and arts of ancient India were the routes which lead to this ultimate goal.

A particular school of thought in the 7th Century AD expounded that whatever efforts are put forth for the *moksha*, attained after ones death was futile and worthless. What is the use of anything which can not be enjoyed during the life time? Even a donkey can achieve the *moksha* after death! Hence one should enjoy the fruits of *moksha* during life, not after death. How this could be achieved? Only by yoga. And perfect yoga can be performed only by a strong and disease free body and mind. Consequently, such a state can be achieved only by consuming the processed *parada* (mercury).

It seems, the aforesaid theory, gradually developed into a practical science, keeping mercury as a nucleus. Many other

minerals and herbs were examined, studied minutely and used for processing mercury, making it a super portion of life.

Wealth of Knowledge

When we go through the numerous scriptures of Rasashastra, we would remain wonderstruck by the vastness and depth of the knowledge acquired by the scholars of those days, regarding the minerals and metals. Their physical and pharmacological properties have been described vividly and scientifically. There are some processes of smelting the metallic ores (*sattvapatana*), which themselves are evidences of knowledge of advanced metallurgy. Hundreds of mercurial processes and the results reveal the consistency and depth of chemical knowledge they possessed.

Lohavidya or alchemy may be a branch of Rasashastra, the references of which can be seen in earlier texts. However, the futility of such practices might have latter lead to the development of *dehavidya*, the medicinal utility of mercury, minerals and metals.

There seems to be two distinct schools of thoughts or two sects which may be observed, when one goes into the antiquity of Rasashastra. One is distinctly Buddhist and the other being Brahmanic or Shaivic. In the earlier period, Buddhist monks dominated the scene and latter, as is evident from the scriptures, the followers of Shiva took over, after the decline of Buddhism in India. Again there were subjects like *Natha Sampradaya* and *Siddha Sampradaya*, having *tantra* as their approach method to the science. Many scholars assert that these practices of tantrism can be traced back to Vedas.

Ancient Scriptures

Though there might be many ancient scriptures of Rasashastra, written earlier to 800 AD, most of them are not available. It is normally agreed that Rasahridayatantra written by Govinda Bhagavatpada, who was said to be the preceptor of

Adya Shri Shankaracharya, is one of the oldest available text on Rasashastra. It is said that it was written in early 800 AD.

During the same period Nagarjuna, famed as father of Rasashastra, wrote several texts. However, there seems to be more than five persons with the identical name. Anyway the scriptures ascribed to Nagarjuna are Nagarjunatantra, Rasaratnakara, Yogaratnamala, Rasendra Mangala, Rudrayamalatantra, Yoga Shataka, Arogyamanjari, etc. Among these, the authorship of Rasaratnakara is ascribed to Nityanatha Siddha also.

Between 800 AD and 1600 AD, several works were written and most of them are available in published form. Among them, important are Rasopanishat by Somanatha (1000 AD), Chakradatta by Chakrapani Datta (1100 AD), Basavarajiyam by Basavaraja (1100 AD), Anandakanda by Bhairavanatha (1200 AD), Kakachandishwaratantra by Kakachandishwara (1200 AD), Rasendrachudamani by Somadeva (1200 AD), Rasarnava by Bhairavananda Yogi (1200 AD), Rasaprakashasudhakara by Yashodhara (1400 AD), Rasaratnasamuchchaya by Vagbhata (1400 AD), Rasendrasarasangraha by Gopalakrishna Bhatta (1400 AD), Rasakoumudi by Gjanachandra (1500 AD), Rasasanketakalika by Chamunda Kayastha (1600 AD), Rasakamadhenu by Shri Chudamani (1700 AD), Rasachandanshu by Dattaram Vaidya (1700 AD) Ayurveda Prakasha by Madhava Upadhyaya (1700 AD) etc.

Rasaratnasamuchchaya

Rasaratnasamuchchaya as mentioned above, is a work of Rasashastra, written probably between 1300 AD and 1400 AD. This work is said to be a compilation, not an original work, as the author himself agreed at the beginning of the text. He has quoted several earlier scholars from whose works, he has borrowed liberally.

This scripture on Rasashastra is praised to be one of the best treatise written in this field. Compared to earliest works, it is

more systematic in arrangement of subject matter as well as description. It is praised in no uncertain words by a well known scholar Sir P.C. Ray, in his 'History of Hindu Chemistry' an authoritative work on ancient Indian chemistry. He writes "Rasaratna-samuchchaya is a systematic and comprehensive treatise on materia medica, pharmacy and medicine. Its methodical and scientific arrangement of the subject matter would do credit to any modern work and altogether it should be pronounced a production of unique of its kind in Sanskrit literature".

The Author

The authorship of the original text has been ascribed to Vagbhatacharya, the son of Vaidyapathi Simhagupta, as depicted in the colophon of the original work. However, there seems to be a difference of opinion, with regards to the identity of this author.

The confusion arises due to the similarities in the names of the authors of well known Ayurvedic works viz., Ashtanga Sangraha, Ashtanga Hridaya and Rasaratnasamuchchaya. Authors of former two also are said to be Vagbhata as of the latter. Both are claimed to be sons of Simhagupta. Hence some scholars claim that both works have been written by same author, Vagbhata. However, majority of the scholars disagree with this, claiming that there was more than 1000 years of gap between two Vagbhatas, the former lived during 300-400 AD. where as the author of Rasaratnasamuchchaya, between 1300-1400 AD.

Dr. D.A. Kulkarni, who translated Rasaratnasamuchchaya in Hindi, has quoted Dr. Ganesh Krishna Garde, from the preface of his 'Sartha Vagbhata' claiming that two Vagbhatas were different personalities. The same may be reproduced here :

1. Nowhere in the three treatises, the author has mentioned that he had written these three works.
2. The command over the language, literary excellence and rendering of the multiple meanings to the words are not seen in Rasaratnasamuchchaya which are hallmarks of Ashtanga Sangraha and Ashtanga Hridaya.
3. The literary style is altogether different.
4. Inspite of being medical treatises, Ashtanga Sangraha and Ashtanga Hridaya, have been written in the lucid style of literature, where as Rasaratnasamuchchya, is in *puranic* or *tantric* style.
5. The combined rendering of the expressions like *Bhanuswaramunisankya*, *Vedasankya* etc. which appear in Rasaratnasamuchchaya, are not seen in the other two.
6. In Rasaratnasamuchchaya, some incorrect and inacurate expressions like '*pliha*' instead of '*pilha*' and words like, *kushthashtadashanashanam, ashtavinshat palanyeva*, are seen, which are not found in Ashtanga Hridaya and Ashtanga Sangraha.
7. There are references of diseases like *raktavata, shitavata, somaroga, jalakurmata* etc., in Rasaratnasamuchchaya, which are not found in other two texts.
8. The order and style of enumeration and description of diseases too are different.
9. *Shvitra* or *kilasa* (leucoderma) which has been mentioned in Ashtanga Hridaya and Ashtanga Sangraha is referred as *shvetakushta* in Rasaratnasamuchchaya. There is a difference in the number and description of *kushtha* as well.
10. *Gouripashana* (arsenical oxide) and *ahiphena* (opium) have found place in Rasaratnasamuchchaya, where as they are absent in other two. They are not mentioned even in Amarakosha. Hui-Ein-Tsang, who visited India in 700 AD does not refer to these drugs while mentioning intoxicating substances used in India.
11. Complex *shlokas* like संसारा वैष्णवी सेना अचला कादिकं कणा (RRS 12th Chapter), are not found in other two works.
12. There are references of authors (who have written treatises

on Rasashastra) like Charpati, Someshvara, Nityanatha, Singhana, and Manthana Bhairava the age of whom have been proved to be between the 13th and 14th Century AD.

13. It is a known practice of the posterity to call oneself by the name of his celebrated father or forefathers. There were several different personages, bearing the name Vagbhata, in India, in different periods. Hence, it is a mistake to conclude that they were one and the same.
14. It is proved beyond doubt that Ashtanga Hridaya was written during the 4th Century AD.

Rasaratnasamuchchaya is believed to be written in the latter part of the 13th Century AD or earlier part of the 14th Century AD. There is a mention of the king Singhana in this text, in two places.

सिङ्घणस्यापि निर्दिष्या भैरवानन्दयोगिना।(Ch. 16)
सिङ्घणक्षोणिपालस्य भूरिमांसप्रियस्य च।
दिष्टो ग्रामं समासाद्य भैरवानन्दयोगिना।।(Ch. 16)

This king Singhana was supposed to be the King of Devagiri (Doulatabad) and belonged to Yadava dynasty and ruled between the 1210 AD and 1247 AD. Hence it can be said that, Rasaratnasamuchchaya might have been written between the 1257 AD and 1327 AD.

The foregoing discussion undoubtedly affirms that the authors of Ashtanga Sangraha and Ashtanga Hridaya were different from that of Rasaratnasamuchchaya.

Generally, in order to distinguish between the Vagbhata of Ashtanga Sangraha and Hridaya, the Vagbhata, the author of Rasaratnasamuchchaya, is called Rasa Vagbhata.

Text

Rasaratnasamuchchaya, as said earlier, is not an independent work, but a compilation, albeit, a compilation of a great value. Compared to the original treatises in this field, in which, the

subject matter is extremely scattered and disintegrated, the Rasaratnasamuchchaya proves to be a comprehensive and handy compilation, making it one of the best works of Rasashastra.

Though there are no distinct section (*sthana*) denoting *Sutrasthana*, *Chikitsasthana* etc., one can distinguish such a pattern. The first 11 chapters are earmarked for materia medica, pharmacology and pharmaceutical operations of minerals, metals including mercury. *Chikitsa*, the treatment part, which includes the *yogas* (prepared formulations) is dealt with, in further chapters from 12th to 30th.

There seems to be no known ancient commentaries available, on this work. However few Sanskrit commentaries have been rendered during the 20th century. One is by Pandit Hajarilal Sukul (Published by author in Patna) and another by Pandit Chintamani Shastri Khare (Published by Anandashrama Granthavali, Poona) and the third by Pandit Jivananda Vidyasagara (Published by author in Calcutta).

Mineral Medicine

Ancient Indian treatises on mercurial operations, mineral medicine and alchemical practices have a significant place in the technical literature of India. They are the living evidences of the high degree of vast technical knowledge, especially in the field of minerology and metallurgy and more significantly in the field of mineral medicine.

The progressive trend in Rasashastra or mineral medicine, said to be started during 800 AD, was at its peak between 1200 AD and 1400 AD. Rasaratnasamuchchaya, the present treatise was the product of this period, which is considered as one of the most well designed work, in this field.

It is not definite as to when actually the minerals and metals found the place into medical science. However, it is seen that, as early as 2000 BC during the period of Charaka and Sushruta (as referred in Charaka Samhita and Sushruta Samhita respectively)

few minerals and metals were in use, as medicines. Latter, this trend proceeded to develop into a separate branch of materia medica of minerals and metals, along with that of herbs and plants. A well set trend can be seen latter, of using minerals and plants together, engendering iatro-chemical medicine or herbo-mineral medicine, and became a primary source of formulations of Ayurveda. Even now such formulations are being used freely by Vaidyas all over India. Infact in many parts, they are preferred, owing to the quick action and small dosage, to herbal preparations.

The progressive path of the Rasashastra, the Science of mercury, minerals and metals is significant in view of the utility in medical science, especially in Ayurveda. There is a wealth of knowledge which must be exploited with the help of modern science and technology. There are many more newer minerals and metals, which should be studied in the light of Rasashastra and they may be incorporated into Ayurvedic Pharmacopoeia.

1
Parada (Mercury)

Invocation

यस्याऽऽनन्दभवेन मङ्गलकलासम्भावितेन स्फुर-
द्धाम्ना सिद्धरसामृतेन करुणावीक्षासुधासिन्धुना।
भक्तानां प्रभवप्रसंहृतिजरारागादिरोगाः क्षणा-
च्छान्तिं यान्ति जगत्प्रधानभिषजे तस्मै परस्मै नमः ॥1॥

Salute thee, *Ishvara* – the greatest soul who is evolved from the bliss, having auspicious aura glistening with bright light; who can eradicate just by mere looking at, all the sins that are causes for all the diseases; who is like nectar of *siddha rasa* (processed mercury) and who, being deathless and with his compassionate vision can eradicate the birth, the death, the senility, disease, the hatred of the devotee; and who is the supreme physician of the Universe.

Name of the Authors

आदिमश्चन्द्रसेनश्च लङ्केशश्च विशारदः।
कपाली मत्तमाण्डव्यौ भास्करः शूरसेनकः॥2॥
रत्नकोशश्च शम्भुश्च सात्त्विको नरवाहनः।
इन्द्रदो गोमुखश्चैव कम्बलिर्व्याडिरेव च॥3॥
नागार्जुनः सुरानन्दो नागबोधिर्यशोधनः।
खण्डः कापालिको ब्रह्मा गोविन्दो लम्पको हरिः॥4॥
सप्तविंशति सङ्ख्याका रससिद्धिप्रदायकाः।
रसाङ्कुशो भैरवश्च नन्दी स्वच्छन्दभैरवः॥5॥

मन्थानभैरवश्चैव काकश्चण्डीश्वरस्तथा।
वासुदेव ऋष्यशृङ्गः क्रिया तन्त्रसमुच्चयी ।। 6 ।।
रसेन्द्रतिलको योगी भालुकिर्मैथिलाह्वयः।
महादेवो नरेन्द्रश्च रत्नाकरहरीश्वरौ ।। 7 ।।
ऐतेषां क्रियतेऽन्येषां तन्त्राण्यालोक्यसङ्ग्रहः।
रसानामथ सिद्धानां चिकित्सार्थोपयोगिनाम् ।। 8 ।।
सूनुना सिंहगुप्तस्य रसरत्नसमुच्चयः।
रसोपरसलोहानी यन्त्रादिकरणानि च ।। 9 ।।
शुद्ध्यर्थमपि लोहानां तन्त्रादिकरणानि च।
शुद्धिः सत्त्वं द्रुतिर्भस्मकरणं च प्रवक्ष्यते ।। 10 ।।

Vagbhatacharya the son of Simhagupta, composing the book, Rasaratna Samuchchaya, which is useful in the treatment and which consists of *siddha rasa* (experimented mercurial formulations) by referring all the *rasagranthas* (books on mecurial operations) which are authored by Rasendratilaka, Yogi, Bhaluki, Maithila, Mahadeva, Narendra, Ratnakara, Harishwara etc., and editors (compilers) like Rasankusha, Bhairava, Svachhanda Bhairava, Manthana Bhairava, Kakachandishwara, Vasudeva, Rishyashringa who have compiled many works related to mercurial operations and of those twenty seven like Adima, Chandrasena, Lankesha, Visharada, Kapali, Mattha, Mandavya, Bhaskara, Shurasena, Ratnakosha, Shambhu, Sattvika Naravahana, Indrada, Gomukha, Kalambi, Vyadhi, Nagarjuna, Surananda, Nagabodhi, Yashodhana, Khanda, Kapalika, Brahma, Govinda, Lampaka and Hari who have attained *rasasiddhi.*

The distinct description such as of *rasa, uparasa, loha* and *yantra* and *puta* which are used in *shodhana, marana* of them, is given in this text. It also contains the detailed account regarding *dhatu, upadhatu* and their *shodhana, marana, sattvapatana, dhrutikarana* etc.

Description of Himalaya

अस्ति नीहारनिलयो महानुत्तरदिङ्मुखे।
उत्तुङ्गशृङ्गसङ्घातलङ्घिताभ्रो महीधरः ।। 11 ।।

विश्रामाय वियन्मार्गविलङ्घनघनश्रमः।
अवतीर्ण इव क्षोणीं शरदम्बुमुचां गणः ।। 12 ।।
राशिराशीविषाधीशफणाफलकरोचिषाम्।
भित्त्वा भुवमिवोत्तीर्णो यो विभाति भृशोन्नतः ।। 13 ।।
ज्वलदोष धयो यस्य नितम्बमणिभूमयः।
नक्तमुद्दामतडितामनुकुर्वन्ति वार्मुचाम् ।। 14 ।।
कटके सञ्चरन्तीनां यस्य किन्नरयोषिताम्।
पादेषु धातुरागेण लाक्षाकृत्यमनुष्ठितम् ।। 15 ।।
अवतंसितशीतांशुराच्छादितदिगम्बरः।
यो गुहाधिगतो लोकैर्गिरीश इति गीयते ।। 16 ।।
निमीलितदृशो नित्यं मुनयो यस्य सानुषु।
प्रत्यक्षयन्ति गिरिशमवाङ्मनसगोचरम् ।। 17 ।।
शिलातलप्रतिहतैर्यस्य निर्झरशीकरैः।
अहन्यपि निरीक्ष्यन्ते यक्षस्तंताराङ्कितं नभः ।। 18 ।।
नीहारपवनोद्रेकनिःसहा यत्र पूरुषाः।
निजस्त्रीणां निषेवन्ते कुचोष्माणं निरन्तरम् ।। 19 ।।
सञ्चरन् कटके यस्य निदाघेऽपि दिवाकरः।
उद्दामहिमरुद्धोष्मा न शीतांशोर्विभिद्यते ।। 20 ।।
गुहागृहेषु कस्तूरीमृगनाभिसुगन्धिषु।
गायन्ति यत्र किन्नर्यो गौरीपरिणयोत्सवम् ।। 21 ।।
चकास्ति तत्र जगतामादिदेवो महेश्वरः।
रसात्मना जगत्त्रातुं जाता यस्मान्महारसः ।। 22 ।।

Situated at the northern direction, the Himalaya, the abode of snow, having high mountains which enchroaches the clouds above and look like the group of clouds which have flown down on the earth to rest, this high Himalaya mountain is shining brightly like the spectrum of rays emitting from the jewel in the head of serpent, the Adishesha. The scattered mountains which are seat for jems and radiant medicinal herbs, shine like lightening in the clouds. The redness of the *padmaraga mani* (ruby) which are adorned the feet of *kinnara* (godly) women and *gairika* (red ochre), *manahshila* (realgar) etc. remind the redness of the *alaktaka* (henna). With sporting, moon as an ornament and *dik*

(directions) as clothes, having many hills and valleys, the Himalaya is called the king of mountains.

Living in this Himalayan mountain, the sages behold Mahadeva, who is inexplicable even by voice and mind, by their inner eyes. 'The water in the streams when falls on the rocks, forming the drizzling drops which shine like stars even in the day-time, is observed by the *yaksha* (celestial people). The men unable to resist the speeding cold snow-wind, take shelter of the warmth of breasts of women (embrace them). Due to such an atmosphere filled with snow, the sun is cool even in summer. The *kinnara* women sitting in the Himalayan caves which are surrounded by the fragrance of *kasturi* (musk) dropped from the umbilicus of the musk deer, sing the songs of wedding ceremony of the Goddess Parvati. On such a Himalayan mountain, Lord Mahadeva dwells and only from him the *maharasa* (the supreme one) *parada* (murcury) is evolved.

शताश्वमेधेन कृतेन पुण्यं गोकोटिभिः स्वर्णसहस्रदानात्।
नृणां भवेत् सूतकदर्शनेन यत् सर्वतीर्थेषु कृताभिषेकात्॥ 23॥
विधाय रसलिङ्गं यो भक्तियुक्तः समर्चयेत्।
जगत्त्रितयलिङ्गानां पूजाफलमवाप्नुयात्॥ 24॥
भक्षणं स्पर्शनं दानं ध्यानं च परिपूजनम्।
पञ्चधा रसपूजोक्ता महापातकनाशिनी॥ 25॥
हन्ति भक्षणमात्रेण पूर्वजन्माघसम्भवम्।
रोगसङ्घमशेषाणां नराणां नात्र संशयः॥ 26॥
पूर्वजन्मकृतं पापं सद्यो नश्यति देहिनाम्।
सुगन्धपिष्टसूतेन यदि शम्भुर्विलेपितः॥ 27॥
अभ्रकं त्रुटिमात्रं यो रसस्य परिजारयेत्।
शतक्रतुफलं तस्य भवेदित्यब्रवीच्छिवः॥ 28॥
यश्च निन्दति सूतेन्द्रं शम्भोस्तेजः परात्परम्।
स पतेन्नरके घोरे यावत्कल्पविकल्पनम्॥ 29॥

By mere looking at mercury, human beings get the *punya* (virtue, merit) which is equal to that *punya* acquired by performing one hundred *ashvamedha yajna* (a holy rite) or by giving away one crore (10 million) cows or donating a thousand gold (coins) or dipping in all the holy waters. Those who prepare the *linga* out of mercury and worship with reverence, will get the merit of worshipping all the *Shivalingas* (symbol of Lord Shiva) situated in all the three worlds (the earth, the one which is above it and one which is below). The great sins (diseases) will disappear by consuming, touching, donating, dedicating upon and worshipping the mercury. If the mercury is consumed with all the rituals, even the sins committed during the previous life are eroded without any doubt.

If the mercury, ground with aromatic substances (like musk, camphor etc.) or purified sulpher, and smeared over the *Shivalinga* daily, the sins committed in the previous life are vanished. It is told actually by Maheshvara that, if those who perform *jarana* of even a little amount of *abhraka* (mica) with mercury would acquire the merit of performing one hundred *ashvamedha yajnas*. Contrary to this, if anybody maligns the mercury, they would suffer hardships in the hell for thousands of years.

रोगिभ्यो यो रसं दत्ते शुद्धिपाकसमन्वितम्।
तुलादानाश्वमेधानां फलं प्राप्नोति शाश्वतम्॥ 30॥

That physician who, after purifying the mercury or after performing *jarana* with the help of sulphur etc. and gives it to the patient with all the rituals, will get the merit of donating a thousand gold (coins) and of performing one hundred *ashvamedha yajnas*.

सिद्धे रसे करिष्यामि निर्दारिद्र्यगदं जगत्।
रसध्यानमिदं प्रोक्तं ब्रह्महत्यादिपापनुत्॥ 31॥
अभ्रग्रासो हि सूतस्य नैवेद्यं परिकीर्तितम्।
रसस्येत्यर्चनं कृत्वा प्राप्नुयात् क्रतुजं फलम्॥ 32॥
उदरे संस्थिते सूते यस्योत्क्रामति जीवितम्।
स मुक्तो दुष्कृताद्घोरात्प्रयाति परमं पदम्॥ 33॥

'By attaining *rasasiddhi*, I will eradicate the poverty or diseases from this world' is the pledge or reflection which alone is

the *rasadhyana* (meditation of mercury). The human being will be free from *brahmahatyadi doshas* (the sins like killing the *brahmin* etc.) by such a meditation and acts.

Keeping the above reflection in mind, if mica is given as *grasa* to mercury, that alone is *naivedya* (offering). By such kind of worship of mercury, the merit of performing a *yajna* is augmented. After the death, i.e. at the end of his life span of a man, if there is presence of mercury in the form of medicine in his stomach, such a man will be free from all the sins and he would attain emancipation.

Properties of Parada in Specific Forms

मूर्च्छित्वा हरति रुजं बन्धनमनुभूय मुक्तिदो भवति।
अमरीकरोति हि मृत: कोऽन्य: करुणाकर: सूतात्।। 34।।
सुरगुरुगोद्विजहिंसापापकलापोद्भवं किलासाध्यम्।
श्वित्रं तदपि च शमयति यस्तस्मात्क: पवित्रतर: सूतात्।। 35।।
रसबन्ध एव धन्य: प्रारम्भे यस्य सततमिति करणा।
सेत्स्यति रसे करिष्ये महीमहं निर्जरामरणाम्।। 36।।

The *murcchita* (swooned) *parada* destroys all the diseases, the *baddha* (arrested) *parada* is responsible for emancipation and *mrita* (inactive) *parada* brings about the immortality (long-life). Can there be any other medicine which is more magnanimous than this mercury?

If even the incurable *sveta kushta* (leucoderma) arising due to the sins by killing teacher, cow and *brahmin*, is cured by this (*parada*), then what else is holier than this mercury?

He alone is fortunate who, before starting the mercurial operations (*parada bandhana*), vows that he would bring about the agelessness and immortality to all the human beings after accomplishing the goal.

सुकृतफलं तावदिदं सुकुले यज्जन्म धीश्च तत्रापि।
साऽपि च सकलमहीतलतुलनफला भूतलं च सुविधेयम्।। 37।।

भूतलविधेयताया: फलमर्थास्ते च विविधभोगफला:।
भोगा: सन्ति शरीर तदनित्यमतो वृथा सकलम्।। 38।।
इति धनशरीरभोगान्मत्वाऽनित्यान् सदैव यतनीयम्।
मुक्तौ सा च ज्ञानात्तच्चाभ्यासात्स च स्थिरे देहे।। 39।।
तत्स्थैर्ये न समर्थं रसायनं किमपि मूललोहादि।
स्वयमस्थिरस्वभावं दाह्यं क्लेद्यं च शोष्यं च।। 40।।

Any man has the ambition of taking birth in a noble family and becoming extremely intelligent and with the help of this intellect can assimilate all the knowledge existing in the whole universe, can control the world, can augment the riches and enjoy all the worldly pleasures and luxuries.

However, such an enjoyment is possible only through this human body. But this body is only transitory and evanescent. Hence as this is going to be destroyed one day, all the enjoyments are futile. So, man should constantly struggle for the liberation, as this body, the riches and enjoyments are impermanent. And this liberation is possible only through the *yathartha jnana* (the real knowledge). And *yogabhyasa* (practice of yoga) is the only path for such real knowledge. But such a practice of yoga is possi-ble only by a disease free, enduring body.

For the endurance or stability of the body, neither herbal medicines nor metallic medicines as *rasayana* (rejuvenators), are capable. For such a *rasayana* substances themselves are unreliable. They may be burnt in the fire, get soaked in the water, dry up in the sunrays. (But as mercury cannot be affected with such things, it is superior, and supreme).

काष्ठौषध्यो नागे नागो वङ्गेऽथ वङ्गमपि शुल्बे।
शुल्बं तारे तारं कनके कनकं च लीयते सूते।। 41।।
अमृतत्वं हि भजन्ते हरमूर्तौ योगिनो यथा लीना:।
तद्वत्कवलितगगने रसराजे हेमलोहाद्या:।। 42।।

Herbal drugs are merged in *seesa* (lead), lead in tin and tin is merged in copper. The copper is absorbed in silver, silver in gold and gold is absorbed in mercury.

As the yogis (sages) attain immortality or salvation by becoming one with Shiva, in the same way *parada*, which has taken *abhraka grasa* (consumed mica) attains the stability by absorbing all the metals like gold, iron etc.

Mercury : Cause for Liberation

परमात्मनीव सततं भवति लयो यत्र सर्वसत्त्वानाम्।
एकोऽसौ रसराज: शरीरमजरामरं कुरुते ।।43।।

Like all the living beings who become one with the Supreme soul, in the same way all *sattvas* (all the *rasa*, *uparasa*, metals etc.) are absorbed in mercury, which is like a king of all *rasas* (minerals).

Such mercury makes the body ageless and immortal.

स्थिरेदेहेऽभ्यासवशात्प्राप्य ज्ञानं गुणाष्टकोपेतम्।
प्राप्नोति ब्रह्मपदं न पुनर्भववासजन्मदु:खानि।। 44।।

Acquiring the stable body after consuming the mercury, the man, by continuous exercise, obtains the real knowledge, which has eight qualities (*ashta gunayukta*) and attains the salvation. Thereafter, he need not live in the womb (*garbhavasa*). He, neither is affected with further birth, death nor rebirth etc.

एकांशेन जगद्युगपदवष्टभ्यावस्थितं परं ज्योति:।
पादैस्त्रिभिस्तदमृतं सुलभं न विरक्तिमात्रेण।। 45।।

Pervading the three parts (*tripada*, i.e. *abhayasa*, *sthiradeha* and *sat jnana*) with this single fraction, the lighted one (*jyoti svarupa*), that is, the Supreme soul, cannot be achieved by mere renunciation.

न हि देहेन कथञ्चिद्व्याधिजरामरणदु:खविधुरेण।
क्षणभङ्गुरेण सूक्ष्मं तद्ब्रह्मोपासितुं शक्यम्।। 46।।

It is not possible to worship, that subtle Brahma, the Supreme soul, by this body which is always afflicted with diseases and miseries or birth and death, and which is impermanent.

नामापि देहसिद्धे: को गृह्णीयाद्विना शरीरेण।
यद्योगगम्यममलं मनसोऽपि न गोचरं तत्त्वम्।। 47।।

It is futile even to pronounce the term *dehasiddhi* without achieving the stable body. Attainment of such a pure principle is possible only through practice of yoga. Unless one attains *dehasiddhi*, this is not even imaginable.

यज्ञाद्दानात्तपसो वेदाध्ययनात् दमात् सदाचारात्।
अत्यन्तभूयसी किल योगवशादात्मसंवित्ति:।। 48।।

The self realization achieved by practice of yoga is far more superior than that which is achieved by *yajna* (sacred rites), donations, reforms, meditations, studying Vedas, self restrain, good conduct etc. (and this practice of yoga is possible only through stable body).

भ्रूयुगमध्यगतं यच्छिखिविद्युत्सूर्यवज्जगद्भासि।
केषाञ्चित्पुण्यदृशामुन्मीलति चिन्मयं परं ज्योति:।। 49।।

That Supreme light (soul), which illuminates the whole world like fire, electricity and sun, that light which is seen between two eye-brows, appears to only those selected meritorious.

तस्मिन्नाधाय मन: स्फुरदखिलं चिन्मयं जगत्पश्यन्।
उत्सन्नकर्मबन्धो ब्रह्मत्वमिहैव चाऽऽप्नोति।। 50।।

That man who, keeping the Almighty in mind, perceives the Universal light and his *chinmaya svarupa*, can attain the *brahmatva* (being one with Almighty) disentangling himself from the bindings of *papa-punya* (merits and demerits), evolving out of auspicious and inauspicious deeds, even staying amidst the worldly affairs.

परमानन्दैकरसं परमं ज्योति: स्वभावमविकल्पम्।
विगलितसकलक्लेशं ज्ञेयं शान्तं स्वसंवेद्यम्।। 51।।

The knowledge, which is blissful, enlightening, perfect, and capable of eradicating the sufferings, can alone be self experienced.

रागद्वेषविमुक्ताः सत्याचारा मृषारहिताः।
सर्वत्र निर्विशेषा भवन्ति चिद्ब्रह्मसंस्पर्शात्॥ 52॥

Man is relieved from *raga-dvesha* by the touch of (by acquiring the self-knowledge) that Almighty. He involves in good deeds, separating himself from bad conducts and he becomes detached or impartial.

तिष्ठन्त्यणिमादियुता विलसद्देहाः सदोदितानन्दाः।
ब्रह्मस्वभावममृतं सम्प्राप्ताश्च एव कृतकृत्याः॥ 53॥

The man becomes radiant and gets the *ashta siddhis* (*anima, garima* etc.) by the realization of the auspicious Almighty. He also keeps immersed always in the bliss and feels accomplished.

आयतनं विद्यानां मूलं धर्मार्थकाममोक्षाणाम्।
श्रेयः परं किमन्यच्छरीरमजरामरं विहायैकम्॥ 54॥
प्रत्यक्षेण प्रमाणेन यो न जानाति सूतकम्।
अदृष्टविग्रहं देवं कथं ज्ञास्यति चिन्मयम्॥ 55॥
यज्जरया जर्जरितं कासश्वासादिदुःखविवशं च।
योग्यं तन्न समाधौ प्रतिहतबुद्धीन्द्रियप्रसरम्॥ 56॥
बालः षोडशवर्षो विषयरसास्वादलम्पटः परतः।
यातविवेको वृद्धो मर्त्यः कथमाप्नुयान्मुक्तिम्॥ 57॥
अस्मिन्नेव शरीरे येषां परमात्मनो न संवेदः।
देहत्यागादूर्ध्वं तेषां तद्ब्रह्म दूरतरम्॥ 58॥
ब्रह्मादयो यतन्ते तस्मिन् दिव्या तनुं समाश्रित्य।
जीवन्मुक्ताश्चान्ये कल्पान्तस्थायिनो मुनयः॥ 59॥
तस्माज्जीवन्मुक्तिं समीहमानेन योगिना प्रथमम्।
दिव्या तनुर्विधेया हरगौरीसृष्टिसंयोगात्॥ 60॥

There is nothing nobler, greater than this body which is a seat of all kinds of teachings, which is instrumental for attaining the four types of *purushartha* (values of life, viz. *dharma* – the morality, *artha* – the wealth, *kama* – the desire and the *moksha* – emancipation) and which is ageless and immortal.

If a man is not capable of perceiving the mercury, the direct evidence of making the body ageless and immortal, then how can he be able to understand that unperceivable, knowledgeable Almighty?

The body afflicted with senility, withered by diseases like *shvasa, kasa* (asthama, cough) etc., senses weak and refusing to perform their duties, cannot attain the state of *samadhi* (*dhyana yoga*), which is necessary for the enlightenment.

Until sixteen years, the man remains in childhood. He becomes a dissolute person during the later period of youth and hence blind towards the real knowledge. Still later in the period of senility, there would be diminished reasoning power. If the whole life is spent in this manner, how one can achieve the salvation?

If man is not capable of achieving the self-realisation during his human life there is no chance, he could do this after his death.

Even the gods like Brahma etc. and sages with celestial bodies, who are living since ages, have been striving to attain the knowledge of the Almighty.

Hence the yogi, who is desirous of achieving the liberation, should make his body celestial-ageless, and immortal with the help of mercury and sulphur (or mica) which are the creations of Hara (Shiva) and Gouri (Parvati).

Description of Origin of Parada

शैलेऽस्मिञ्छिवयोः प्रीत्या परस्परजिगीषया।
सम्प्रवृत्ते च सम्भोगे त्रिलोकक्षोभकारिणि॥ 61॥
विनिवारयितुं वह्निः सम्भोगं प्रेषितः सुरैः।
काङ्क्षमाणैस्तयोः पुत्रं तारकासुरनामकम्॥ 62॥
कपोतरूपिणं प्राप्तं हिमवत्कन्दरेऽनलम्।
अपक्षिभावसङ्क्षुब्धं स्मरलीलाविलोकिनम्॥ 63॥
तं दृष्ट्वा लज्जितः शम्भुर्विरतः सुरतात्तदा।
प्रच्युतश्चरमो धातुर्गृहीतः शूलपाणिना॥ 64॥

प्रक्षिप्तो वदने वह्नेर्गङ्गायामपि सोऽपतत्।
बहिः क्षिप्तस्तया सोऽपि परिदन्दह्यमानया।। 65।।
सञ्जातास्तन्मलाधानाद्धातवः सिद्धिहेतवः।
यावदग्निमुखाद्रेतो न्यपतद्धूरिसारतः।। 66।।
शतयोजननिम्नांस्तान्कृत्वा कूपांस्तु पञ्च च।
तदाप्रभृति कूपस्थं तद्रेतः पञ्चधाऽभवत्।। 67।।

In the mountain of Himalaya, Lord Shiva and Goddess Parvati with mutual affection and with the desire of defeating each other, started the sexual copulation, which was capable of creating the commotion (disturbance), throughout the three worlds.

Intending to procure a son capable of killing the demon Tarakasura, resulting out of this seemingly endless act of copulation, the gods sent Agni to terminate the sexual act. Disguising like a pegion, the Agni sitting in the Himalayan cave, when witnessed the sexual act of Shiva and Parvati, felt shy, contrary to the feelings of a bird (as he was in the form of bird). When Shiva saw that, this was not a bird but Agni he too felt shy and stopped the act of coitus. At the same time (moment), he took the ejaculated semen into both the hands and hurled it upon the Agni. Unable to bear the intensity of the semen, Agni in turn, threw it away in the river Ganga. But even Ganga could not bear its ferocity and she too expelled it out. Out of the blemishes of this semen, emerged different kinds of metals, which are capable of making the body stable. On the banks of Ganga, wherever the semen dropped from the face of Agni, there formed five wells, each one hundred *yojana* deep. From then onwards five kinds of *parada* was formed in those wells.

Varieties and Properties of Parada

रसो रसेन्द्रः सूतश्च पारदो मिश्रकस्तथा।
इति पञ्चविधो जातः क्षेत्रभेदेन शम्भुजः।। 68।।

The semen of Shiva–the *parada*, due to different specific

origin of availability, distinguished itself into five types viz. *rasa, rasendra, suta, parada* and *mishraka*.

रसो रक्तो विनिर्मुक्तः सर्वदोषै रसायनः।
सञ्जातास्त्रिदशास्तेन नीरुजा निर्जरामराः।। 69।।
रसेन्द्रो दोषनिर्मुक्तः श्यावो रूक्षोऽतिचञ्चलः।
रसायनौऽभवंस्तेन नागा मृत्युजरोज्झिताः।। 70।।
देवैर्नागैश्च तौ कूपौ पूरितौ मृद्भिरश्मभिः।
तदाप्रभृति लोकानां तौ जातावतिदुर्लभौ।। 71।।
ईषत्पीतश्च रूक्षाङ्गो दोषयुक्तश्च सूतकः।
दशाष्टसंस्कृतैः सिद्धो देहं लोहं करोति सः।। 72।।
अथान्यकूपजः सोऽपि चञ्चलः श्वेतवर्णवान्।
पारदो विविधैर्योगैः सर्वरोगहरः स हि।। 73।।
मयूरचन्द्रिकाच्छायः स रसो मिश्रको मतः।
सोऽप्यष्टादशसंस्कारयुक्तश्चातीव सिद्धिदः।। 74।।
त्रयः सूतादयः सूताः सर्वसिद्धिकरा अपि।
निजकर्मविनिर्माणैः शक्तिमन्तोऽतिमात्रया।। 75।।
एतां रससमुत्पत्तिं यो जानाति स धार्मिकः।
आयुरारोग्यसन्तानं रससिद्धिं च विन्दति।। 76।।

The first one, *rasa*, is red in colour and devoid of all the blemishes. Gods became ageless and immortal after consuming it. The *rasendra* is without blemishes, has *shyava (kapila*-brown) colour, is dry (rough) in nature, extremely unstable (pure) and has *rasayana* qualities. The *naga* people who consumed this, became free for senility and death.

Later the gods and *nagas* shut off the wells of *rasa* and *rasendra*, filling them with mud and stones. Since then human beings are unable to get these *rasa* and *rasendra*, from those wells.

The mercury which is called *suta*, has little yellow in colour and is rough and has blemishes. If this is consumed after subjecting to *ashtadasha samskara* (eighteen processes) the body becomes strong like iron.

The one which is available in the other well is called *parada*,

which is very unstable and white in colour. If various yogas (combinations) prepared using this *parada* and is consumed (after purification), it eradicates all the diseases.

The *parada* which has got the lustre of peacock's wing, is called *mishraka*. This too is used after subjecting to eighteen processes become very beneficial.

The varities such as *suta*, *parada* and *mishraka* are basically beneficial, valuable and if they are subjected to various specific processes, they can assume greater power.

A virtuous person, who understands the origin of mercury as said above, would achieve the longevity, possesses health, many children and accomplishment in mercurial processes (*rasa siddhi*).

Definitions of Rasa

रसनात् सर्वधातूनां रस इत्यभिधीयते।
जरारुङ्मृत्युनाशाय रस्यते वा रसो मतः।। 77।।
रसोपरसराजत्वाद्रसेन्द्र इति कीर्तितः।
देहलोहमयीं सिद्धिं सूते सूतस्ततः स्मृतः।। 78।।
रोगपङ्काब्धिमग्नानां पारदानाच्च पारदः।
सर्वधातुगतं तेजोमिश्रितं यत्र तिष्ठति।
तस्मात् स मिश्रकः प्रोक्तो नानारूपफलप्रदः।। 79।।

Mercury is called *rasa* as it engulfs all the metals like gold etc. Also, it is called so, because it eradicates senility, diseases and death. It is called *rasendra*, as it is superior among all the *rasa*, *maharasa* and *uparasa*.

As it brings about the *dehasiddhi* (making the body healthy and strong) and *lohasiddhi* (converting the lower metals into gold and silver), it is named *suta*.

It is called *parada*, because it rescues man who is trapped in the swamp of diseases.

It is known as *mishraka*, as it has the lustre of all the metals, concentrated in it.

एवं भूतस्य सूतस्य मर्त्यमृत्युगदच्छिदः।
प्रभावान्मानुषा जाता देवतुल्यबलायुषः।। 80।।
तान्दृष्ट्वाऽभ्यर्थितो रुद्रः शक्रेण तदनन्तरम्।
दोषैश्च कञ्चुकाभिश्च रसराजो नियोजितः।
तदाप्रभृति सूतोऽसौ नैव सिध्यत्यसंस्कृतः।। 81।।

With the origin and properties said above, and with the power of setting the men free from the deadly diseases, human beings started becoming very powerful and long living, like god. The Indra (the king of gods) seeing this, became, frightened and prayed Lord Shiva. Then Shiva placed various blemishes and *kanchuka* in mercury. Since then, unless it becomes pure with the help of different process, mercury can not yield the said benefits.

Gati (Movements) of Parada

जलगो जलरूपेण त्वरितो हंसगो भवेत्।
मलगो मलरूपेण सधूमो धूमगो भवेत्।। 82।।
अन्या जीवगतिर्दैवी जीवोऽण्डादिव निष्क्रमेत्।
स तांश्च जीवयेज्जीवान् तेन जीवो रसः स्मृतः।। 83।।
चतस्रो गतयो दृश्या अदृश्या पञ्चमी गतिः।
मन्त्रध्यानादिना तस्य रुध्यते पञ्चमी गतिः।। 84।।
इति भिन्नगतित्वाच्च सूतराजस्य दुर्लभः।
संस्कारस्तस्य भिषजा निपुणेन तु रक्षयेत्।। 85।।

(During the process) *parada* is lost along with the water. If the processes are hurried, it flies off like swan (or evaporates when comes in contact with sun rays), lost as blemishes, mixed along with different blemishes and vanishes like smoke (or vapour) along with the smoke.

Apart from these four *gati* (movements), there is one more called *jivagati*, which is called *daivigati* or *adrishyagati*. As the life (soul) disappears from the body, in the same way, mercury vanishes without any indication. Hence, this is called *jivagati*.

The first four are perceivable, but the last one *jivagati* is invis-

ible. This fifth *jivagati* can be controlled only by chanting *mantras* and meditation.

With *parada* having all these various movements (*gatis*), it is extremely difficult to perform specific *samskaras* (processes) on *parada*. Hence, the intelligent physician should control and protect the mercury with extreme skill and expertise.

Expulsion of Mercury

प्रथमे रजसि स्नातां हयारूढां स्वलङ्कृताम्।
वीक्षमाणां वधूं दृष्ट्वा जिघृक्षुः कूपगो रसः।। 86 ।।
उद्गच्छति जवात्साऽपि तं दृष्ट्वा याति वेगतः।
अनुगच्छति तां सूतः सीमानं योजनोन्मिताम्।। 87 ।।
प्रत्यायाति ततः कूपं वेगतः शिवसम्भवः।
मार्गनिर्मितगर्तेषु स्थितं गृह्णन्ति पारदम्।। 88 ।।

The *parada* jumps out of the well with high speed with the desire of catching the beautiful woman riding on a horse looking at it (mercury) and who is adorned with clothes and jewelleries after taking bath and after first menstrual period. When the woman sees *parada*, gallops speedily, one *yojana* away. After following her until there, *parada* returns to its well. While returning, the mercury deposits at pits on the road, and is being used by the people.

Origin of Hingula (Cinnabar)

पतितो दरदे देशे गौरवाद्वह्निवक्त्रतः।
स रसो भूतले लीनस्तत्तद्देशनिवासिनः।
तां मृदं पातनायन्त्रे क्षिप्त्वा सूतं हरन्ति च।। 89 ।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ
रसरत्नसमुच्चये रसोत्पत्तिर्नाम प्रथमोऽध्यायः।

Expelled from the *agnimukha* (face of the Agni), the *parada* being very heavy, fell in *darada desha*, and remained there mixed

with mud. The people of that country, subjected this to *patana yantra* (subliming apparatus) and used (the mercury).

This completes the first chapter called *Rasotpatti Parada* (Mercury), in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

2
Maharasa

अभ्रवैक्रान्तमाक्षीकविमलाद्रिजसस्यकम् ।
चपलो रसकश्चेति ज्ञात्वाऽष्टौ सङ्ग्रहेद्रसान् ॥ 1 ॥

Abhraka (mica), *vaikratna* (tourmaline), *makshika* (chaliopyrite), *vimala* (iron pyrite), *shilajatu*, *sasyaka* (copper sulphate), *chapala* (bismuth or selenium) and *rasaka* (calamine) are the eight *maharasa*. These are collected after proper examination.

Features of Gandhaka and Abhraka

देव्या रजो भवेद् गन्धो धातुः शुक्रं तथाऽभ्रकम् ।

Gandhaka (sulphur) is said to be the menstrual fluid of Parvati and *abhraka* is her *shukra* (This verse is to be interpolated).

ABHRAKA (MICA)

Properties of Abhraka

गौरीतेजः परमममृतं वातपित्तक्षयघ्नं,
प्रज्ञाबोधि प्रशमितरुजं वृष्यमायुष्यमग्र्यम् ।
बल्यं स्निग्धं रुचिदमकफं दीपनं शीतवीर्यं,
तत्तद्योगैः सकलगदहृद्व्योम सूतेन्द्रबन्धि ॥ 2 ॥

The *abhraka* which is essence (*shukra*) of Parvati, is like best ambrosia. It purifies *vata*, *pitta*, reduces *kshaya*, strengthens the intellect and eradicates the diseases. It is aphrodisiac, appetizer, alleviator of *kapha*, promoter of strength and life span and has *shita virya* (cold in potency). It can cure all the diseases if taken

along with various vehicular substances (or in various combination). At the same time it is capable of *parada bandhana* (arresting the mobility of mercury).

राजहस्तादधस्ताद्यत्समानीतं घनं खनेः ।
भवेत्तदुक्तफलदं निःसत्त्वं निष्फलं परम् ॥ 3 ॥

The *abhraka* which is mined from the depth of one *rajahasta* (1.25 feet) is said to have the above qualities; the *abhraka* available on the surface of the earth is devoid of essence and is useless.

Varieties of Abhraka

पीनाकनागमण्डूकवज्रमित्यभ्रकं मतम् ।
श्वेतादिवर्णभेदेन प्रत्येकं तच्चतुर्विधम् ॥ 4 ॥

Abhraka is of four types, viz. *pinaka abhraka*, *nagabhrak*, *mandukabhraka* and *vajrabharaka*. Similarly according to colour it is of four kinds, i.e. *shvetabhraka*, *pitabhraka*, *raktabhraka* and *krishnabhraka.*

पीनाकं पावकोत्तप्तं विमुञ्चति दलोच्चयम् ।
तत्सेवितं मलं बंद्ध्वा मारयत्येव मानवम् ॥ 5 ॥
नागाभ्रं नागवत्कुर्याद् ध्वनिं पावकसंस्थितम् ।
तद्भुक्तं कुरुते कुष्ठं मण्डलाख्यं न संशयः ॥ 6 ॥
उत्प्लुत्योत्प्लुत्य मण्डूकं ध्मातं पतति चाभ्रकम् ।
तत्कुर्यादश्मरीरोगमसाध्यं शस्त्रतोऽन्यथा ॥ 7 ॥
वज्राभ्रं वह्निसन्तप्तं निर्मुक्ताशेषवैकृतम् ।
देहलोहकरं तच्च सर्वरोगहरं परम् ॥ 8 ॥

If *pinaka* variety of mica is heated on fire, the layers are separated. It leads to death if consumed, causing severe constipation.

The *nagabhraka* makes the hissing sound like serpent when put in the fire and causes *mandala kushta* if consumed, without any doubt.

The *mandukabhraka*, if heated in fire, jumps out like frog. Its intake causes incurable *ashmari* (calculi) disease, which can be removed only through surgical measures.

The *vajrabhraka*, does not exhibit any of the characters when subjected to fire. On the contrary it strengthens the body like iron and destroys all the diseases.

Uses of Coloured Abhraka

श्वेतं रक्तं च पीतं च कृष्णमेवं चतुर्विधम्।
श्वेतं श्वेतक्रियासूक्तं रक्ताभं रक्तकर्मणि।। 9।।
पीताभमभ्रकं यत्तु श्रेष्ठं तत्पीतकर्मणि।
चतुर्विधं वरं व्योम यद्यप्युक्तं रसायने।
तथाऽपि कृष्णवर्णाभ्रं कोटिकोटिगुणाधिकम्।। 10।।

Abhraka is of four types according to colour, i.e. *shveta*, *rakta*, *pita* and *krishna* (white, red, yellow and black respectively). The *shvetabhraka* is useful in *shvetakarma* (converting lower metals into silver or in the treatment of *shvetakushtha*). The *raktabhraka*, which is reddish in colour is used in *rakta karma* (as heamatinic) where as *pitabhraka* is considered best for *pita karma* (converting the lower metals into gold or in the treatment of *kamala*). Though all kinds of *abhraka* are counted as best *rasayana*, the *krishnabhraka* is said to excel in qualities, by crores of times, than other varieties.

स्निग्धं पृथुदलं वर्णसंयुक्तं भारतोऽधिकम्।
सुखनिर्मोच्यपत्रं च तदभ्रं शस्तमीरितम्।। 11।।

The *abhraka* should prossess broad layers, better (black) colour, heavy in weight and the layers should be easily separable. Such *abhraka* is said to be the best.

सचन्द्रिकं च किट्टाभं व्योम न ग्रासयेद्रसः।
ग्रसितश्च नियोज्यं तत् लोहे चैव रसायने।। 12।।
निश्चन्द्रिकं मृतं व्योम सेव्यं सर्वगदेषु च।
सेवितं चन्द्रसंयुक्तं मेहं मन्दानलं चरेत्।। 13।।

यैरुक्तं युक्तिनिर्मुक्तैः पत्राभ्रकरसायनम्।
तैर्दृष्टं कालकूटाख्यं विषं जीवनहेतवे।। 14।।

Parada can not grasp (*grasa*) the *abhraka* which is lustrous and looking like *mandura* (iron oxide). Only such *abhraka*, which can be grasped in the processes of *lohakarma* (converting lower metals into gold etc.) and *rasayana* (rejuvenation therapy) is used.

Only lusterless *abhraka bhasma* (calcined mica) is used in all the diseases. If such *bhasma* having shining particles is used, it causes *prameha* and reduces the digestive power.

Somebody have advised *patrabhraka*, without proper *shodhana* (purification) and *marana* (calcination) to be used as *rasayana*. However, this is as good as advising *kalakuta visha* (a highly potent poison) for the livelihood.

सत्त्वार्थं सेवनार्थं च योजयेच्छोधिताभ्रकम्।
अन्यथा त्वगुणं कृत्वा विकरोत्येव निश्चितम्।। 15।।

Both for *sattvapatana* (extracting *sattva*) and internal administration, only purified mica alone is used. If not, the mica cannot be effective; on the contrary it may cause various kinds of disorders, without any doubt.

Shodhana and Marana of Abhraka

प्रतप्तं सप्तवाराणि निक्षिप्तं काञ्जिकेऽभ्रकम्।
निर्दोषं जायते नूनं प्रक्षिप्तं वाऽपि गोजले।। 16।।
त्रिफलाक्वथिते चापि गवां दुग्धे विशेषतः।
ततो धान्याभ्रकं कृत्वा पिष्ट्वा मत्स्याक्षिकारसैः।। 17।।
चक्रीं कृत्वा विशोष्याथ पुटेदर्धेभके पुटे।
पुटेदेवं हि षड्वारं पौनर्नवरसैः सह।। 18।।
कलांशटङ्कणेनापि सम्मर्द्य कृतचक्रिकम्।
अर्धेभाख्यपुटैस्तद्वत्सप्तवारं पुटेत् खलु।। 19।।
एवं वासारसेनापि तण्डुलीयरसेन च।
प्रपुटेत् सप्तवाराणि पूर्वप्रोक्तविधानतः।
एवं सिद्धं घनं सर्वयोगेषु विनियोजयेत्।। 20।।

Abhraka, if heated strongly and immersed in *kanji* (gruel) for seven times, becomes pure. Similarly, it is heated intensively and dipped seven times in cow's urine or decoction of *triphala* or cow's milk to purify it.

After purifying the *abhraka*, it should be converted into *dhanya-bharaka* and after triturating it in *matsyakshi* juice, *chakrikas* are prepared and dried. Then they are kept in *sharava samputa* and given half *gajaputa*. Similarly, it is rubbed in *punarnava* juice and given six *putas*. Then, pure *tankana* (borax) one sixteenth part of mica, is mixed with it, rubbed, *chakrikas* prepared and half *gajaputa* is given. (Instead, juice of *punarnava* and *tankana* are triturated together along with *abhraka* and *puta* is given). Thus, it is subjected to *puta* for seven times. Then seven *putas*, after rubbing in *vasa* juice and seven *putas* after rubbing in *tanduliya* juice are given, in the same method said above. The *bhasma* of *abhraka* thus prepared should be used in all the yogas (formulations).

Dhanyabhraka

चूर्णाभ्रं शालिसंयुक्तं वस्त्रबद्धं हि काञ्जिके।
निर्यातं मर्दनाद्वस्त्राद्धान्याभ्रमिति कथ्यते।। 21।।

The powder of *abhraka* is mixed with the paddy and tied in a strong cloth. It is then kept in *kanji* (gruel), pressed vigorously. The resultant powder of mica which comes out of the cloth, is called *dhanyabhraka*.

Marana of Dhanyabhraka

धान्याभ्रं कासमर्दस्य रसेन परिमर्दितम्।
पुटितं दशवारेण म्रियते नात्र संशयः।
तद्वन्मुस्तारसेनापि तण्डुलीयरसेन च।। 22।।

It *dhanyabhraka* is triturated in *kasamarda* juice and given *gajaputa*, its *bhasma* is produced undoubtedly. Similarly, *bhasma*

is made available by grinding *dhanyabhraka* in *musta* juice or *tanduliya* juice and then, by subjecting to the *gajaputas*.

Marana of Abhraka

पीतामलकसौभाग्यपिष्टं चक्रीकृताभ्रकम्।
पुटितं षष्ठीवाराणि सिन्दूराभं प्रजायते।। 23।।
क्षयाद्यखिलरोगघ्नं भवेद्रोगानुपानतः।
वटमूलत्वचः क्वाथैस्ताम्बूलीपत्रसारतः।। 24।।
वासामत्स्याक्षिकाभ्यां वा मीनाक्ष्या सकठिल्लया।
पयसा वटवृक्षस्य मर्दितं पुटितं घनम्।
भवेद्विंशतिवारेण सिन्दूरसदृशप्रभम्।। 25।।

Purified *abhraka* is mixed with equal quantity of *tankana* and ground in *haridra* (turmeric) as well as *amalaki* juices, dried and subjected to *puta*, after confining it into *samputa*. Such seven *putas* will yield *bhasma* of mica which has *sindura* (red oxide of lead) colour. This *bhasma* is consumed in various diseases like *raktapitta*, *kshya* with the *anupanas* (vehicles) suitable in such diseases.

Abhraka is rubbed either in the juice of *vatamula* (root of ficus bengalensis) or *nagavalli* or *vasa* or *matysakshi* and *kathilla* or merely in *vatakshira* (latex of *vata*) and subjected to *gajaputa* for twenty times. By this mica *bhasma* is available which has *sindur* (red) colour.

गन्धर्वपत्रतोयेन गुडेन सह भावितम्।
अधोर्ध्वं वटपत्राणि निश्चन्द्रं त्रिपुटैः खगम्।। 26।।
क्षुधं करोति चात्यर्थं गुञ्जार्द्धमितसेवया।
तत्तद्रोगहरैर्योगैः सर्वरोगहरं परम्।। 27।।

Dhanyabhraka mixed with equal quantity of jaggery is given *bhavana* of juice of *eranda patra* (leaves of *eranda*). Then *chakrikas* (small discs) are prepared and dried, kept inside *vatapatras* and after confining within the *sharava samputa* subjected to *puta*. Such three *putas* are necessary to get *nischandra* (lusterless) *bhasma* of mica. This *bhasma*, if consumed in half *ratti* (sixty mg.) quantity,

will cause hunger. It is said to be excellent remedy in all the diseases, if taken with various suitable *anupanas* (vehicles).

Sattvapatana of Abhraka

पादांशटङ्कणोपेतं मुसलीरसमर्दितम्।
रुन्ध्यात्कोष्ठ्यां दृढं ध्मातं सत्त्वरूपं भवेद् घनम्।। 28।।

Purified *abhraka* is mixed with quarter quantity of *tankana* (borax) and rubbed with *musali* juice. After making the *chakrikas* and drying, they are confined in *sattvapatna kosthi* and subjected to intensive heat. This would yield *sattva* (essence-metallic portion) *abhraka*.

Other Methods

कासमर्दघनाधान्यवासानां च पुनर्भुवः।
मत्स्याक्ष्याः काण्डवल्ल्याश्च हंसपाद्या रसैः पृथक्।। 29।।
पिष्ट्वा पिष्ट्वा प्रयत्नेन शोषयेद् घर्मयोगतः।
ततो गोधूमचूर्णं च क्षुद्रमत्स्याश्च टङ्कणम्।। 30।।
प्रत्येकमष्टमांशेन दत्त्वा दत्त्वा विमर्दयेत्।
मर्दने मर्दने सम्यक् शोषयेद्रविरश्मिभिः।। 31।।
पञ्चाजं पञ्चगव्यं वा पञ्चमाहिषमेव च।
क्षिप्त्वा गोलान् प्रकुर्वीत किञ्चित्तिन् दुकतोऽधिकान्।। 32।।
पयो दधि घृतं मूत्रं सविट्कं चाजमुच्यते।
अधःपातनकोष्ठ्यां हि ध्मात्वा सत्त्वं निपातयेत्।। 33।।

Dhanyabhraka powder is triturated separately with juices (or decoctions) of *kasamarda, musta, dhanyaka, vasa, punarnava, matsyakshi and hamsapadi* and kept under the sun after each *bhavana* of each liquid, to dry. Then it is again ground in *godhuma churna* (wheat floor), small fish and *tankana* (borax), each one eighth of the *abhraka*, separately. The resultant material is dried after each grinding in sun rays. Then *panchaja* or *panchagavya* or *panchamahisha* are mixed and rubbed to prepare a ball, little bigger than *tinduka* fruit, dried and kept in *musha* (crucible) and

subjected to intensive heat in *adhapatana koshthi* (stove or furnace). This yields the *sattva* (essence) of *abhraka*.

The milk, ghee, curds, urine and feaces in a group of goat, cow and buffalo, respectively are called *panchaja, panchagavya* and *panchamahisha*.

कोष्ठ्याः किट्टं समाहृत्य विचूर्ण्य रवकान्हरेत्।
तत्किट्टं स्वल्पटङ्केन गोमयेन विमर्द्य च।। 34।।
गोलान्विधाय संशोष्य धमेद्भूयोऽपि पूर्ववत्।
भूयः किट्टं समाहृत्य मृदित्वा सत्त्वामाहरेत्।। 35।।

In the above mentioned process, the *mala* (dirt) like substance is collected from the *koshthi*, powdered and the bigger particles of *sattva* are separated, and the remaining powder is taken, mixed with *tankana* (borax) and cowdung, and a ball is made and dried. This is once again heated, as said earlier, in the *koshthi*. Thus, until all the *sattva* is available, the process of blowing in the *koshthi* is continued.

Sattva Shodhana

अथ सत्त्वकणांस्तांस्तु क्वाथयित्वाऽम्लकाञ्जिकैः।
शोधनीयगणोपेतं मूषामध्ये निरुध्य च।। 36।।
सम्यग्द्रुतं समाहृत्य द्विवारं प्रधमेद् घनम्।
इति शुद्धं भवेत् सत्त्वं योज्यं रसरसायने।। 37।।

The *sattva* particles of *abhraka* as obtained above are boiled in *kanji* (gruel) and after mixing with *shodhaniya* group of substances, kept in *musha* (crucible), closed the mouth and heated. When the particles are melted, the liquid is removed from the fire. After cooling, they are again mixed with the *shodhaniya* group of drugs, heated and cooled.

In this way the *sattva* of *abhraka* is purified. This *sattva* is made use of, in various mercurial operations as well as in *rasayana* therapy.

Softening of Sattva

मधुतैलवसाज्येषु द्रावितं परिवापितम्।
मृदु स्याद्दशवारेण सत्त्वं लोहादिकं खरम्।। 38।।

The *sattva* particles are kept in a crucible, heated in intensive fire and when melted, given the *prakshepa* (are added) of honey, oil, *vasa* (fat) and ghee and heating is continued (or melted *sattva* is poured ten-ten times in each of the above liquids). By repeating this process, even very hard *sattvas* of *ayas, abhraka* become soft.

Marana of Abhraka Sattva

पट्टचूर्णं विधायाथ गोघृतेन परिप्लुतम्।
भर्जयेत्सप्तवाराणि चुल्लीसंस्थितखर्परे।। 39।।
अग्निवर्णं भवेद्यावद्वारं वारं विचूर्णयेत्।
तृणं क्षिप्त्वा दहेद्यावत्तावद्वा भर्जनं चरेत्।। 40।।
ततः सगन्धकं पिष्ट्वा वटमूलकषायतः।
पुटेद्विंशति वाराणि वाराहेण पुटेन हि।। 41।।
पुनर्विंशतिवाराणि त्रिफलोत्थकषायतः।
त्रिफलामुण्डिकाभृङ्गपत्रपथ्याक्षमूलकैः।। 42।।
भावयित्वा प्रयोक्तव्यं सर्वरोगेषु मात्रया।
एवं चेच्छतवाराणि पुटपाकेन साधितम्।। 43।।
सत्त्वाभ्रात्किञ्चिदपरं निर्विकारं गुणाधिकम्।
गुणवज्जायतेऽत्यर्थं परं पाचनदीपनम्।। 44।।

The fine powder (strained through cloth) of *abhraka sattva* is mixed with ghee, kept in an earthen *sharava* (round concave disc) or vessel and heated intensively until the vessel becomes so red-hot that if dry grass is placed on it, it should burn off.

This process is repeated for seven times. Then equal quantity of purified sulphur is mixed with it, ground in decoction of *vatajata* and given twenty *gajaputas*, placing it in *sharava samputa*. Then after grinding it in *triphala* decoction, twenty *varaha putas* are given. The resultant *bhasma* is then given *bhavana* of either

juices or decoctions of *triphala* (three myrobalans), *mundi, bhringaraja, harithaki, bibhitaki* and *mulaka*, in this order.

The above *abhraka bhasma* is used in all the diseases, in adequate dosage. The *bhasma* prepared by giving one hundred *putas*, instead of twenty *varaha putas*, which is called *shataputi abhraka bhasma*, has no parallel, as an excellent medicine. This can prevent all the diseases, if consumed. It is extremely effective and best appetizer and digestive.

सत्त्वस्य गोलकं ध्मातं सस्यसंयुक्तकाञ्जिके।
निर्वाप्य तत्क्षणेनैव कुट्टयेल्लोहपारया।। 45।।
सम्प्रताप्य घनस्थूलकणान्क्षिप्त्वाऽथ काञ्जिके।
तत्क्षणेन समाहृत्य कुट्टयित्वा रजश्चरेत्।। 46।।
गोघृतेन च तच्चूर्णं भर्जयेत्पूर्ववत् त्रिधा।
धात्रीफलरसैस्तद्वद्धात्रीपत्ररसेन वा।। 47।।
भर्जने भर्जने कार्यं शिलापट्टेन पेषणम्।
ततः पुनर्नवावासारसैः काञ्जिकमिश्रितैः।। 48।।
प्रपुटेद्दशवाराणि दशवाराणि गन्धकैः।
एवं संशोधितं व्योमसत्त्वं सर्वगुणोत्तरम्।
यथेष्टं विनियोक्तव्यं जारणे च रसायने।। 49।।

A ball out of *abhraka sattva* is made, heated in an intensive fire and dipped in the *kanji*, containing rice. It is immediately removed from it and pounded in the iron pounder, with the help of an iron pestle and powdered. After filtering, the remaining larger particles are collected and once again heated, immersed in the *kanji*, removed instantly and pounded. This process is repeated until the whole *sattva* becomes powder. Then it is fried with equal quantity of ghee for three times. Similarly, it is then fried with *amalaki* fruit or leaf juice for three times. Then it is powered well, ground with *punarnava* juice, *vasa* juice and *kanji* (either in different juices separately or in the mixture of these liquids) and ten *gajaputas* are given. It is then rubbed with equal quality of purified sulphur and again given then *gajaputas*.

The *sattva bhasma* of *abhraka* thus prepared will have, all the good qualities. According to the need, this can be used in *jarana* of mercury and in rejuvenation therapy.

वेल्लव्योषसमन्वितं घृतयुतं वल्लोन्मितं सेवितम्।
दिव्याभ्रं क्षयपाण्डुरुग्ग्रहणिकाशूलामकुष्ठामयम्।। 50।।
जूर्तिं श्वासगदं प्रमेहमरुचिं कासामयं दुर्धरम्।
मन्दाग्निं जठरव्यथां विजयते योगैरशेषामयान्।। 51।।

The *sattva bhasma* (*divyabhraka*), prepared as said above, is taken in the quantity of one *valla* (1.5 to 2 *ratti* or 185 to 250 mg.) and consumed along with powders of *shunthi*, *maricha*, *pippali* and *vadanga* (each one *ratti* or125 mg.) and ghee. This will eradicate *kshaya*, *pandu*, *shula*, *amavatha*, and *kushtha*. Apart from this, it can cure, if taken along with various suitable *anupanas*, the diseases like *jvara* (fever), *shvasa* (asthama), *prameha*, *aruchi* (anorexia), severe *kasa* (cough), *mandagni* (loss of appetite) and *udara rogas* (ascites).

द्रुतयो नैव निर्दिष्टा: शास्त्रे दृष्टा अपि दृढम्।
विना शम्भो: प्रसादेन न सिद्ध्यन्ति कदाचन।। 52।।

Though, there available, the description of *abhraka driti* in many other texts, it is not found in this (text) as it never can be achieved without the grace of Lord Shiva.

VAIKRANTA
(Tourmaline)

Features and Varieties of Vaikranta

अष्टास्त्रश्चाष्टफलक: षट्कोणो मसृणो गुरु:।
शुद्धमिश्रितवर्णैश्च युक्तो वैक्रान्त उच्यते।। 53।।
श्वेतो रक्तश्च पीतश्च नील: पारावतच्छवि:।
श्यामल: कृष्णवर्णश्च कर्बुरश्चाष्टधा हि स:।। 54।।

Vaikranta has eight angles and eight planes (octagonal) or six angles and six planes (hexagonal), and is *masruna* (smooth). It is heavy, clear and is multi-coloured. According to colour, it is of eight types, i.e. white, red, yellow, blue, *paravata* (grey), *shyama* black and *karbura* (mixed colours).

Properties of Vaikranta

आयुष्प्रदश्च बलवर्णकरोऽतिवृष्य:,
प्रज्ञाप्रद: सकलदोषगदापहारी।
दीप्ताग्निकृत्पविसमानगुणस्तरस्वी,
वैक्रान्तक: खलु वपुर्बललोहकारी।। 55।।
रसायनेषु सर्वेषु पूर्वगण्य: प्रतापवान्।
वज्रस्थाने नियोक्तव्यो वैक्रान्त: सर्वदोषहा।। 56।।

Vaikranta promotes longevity, strength, complexion and intellect. It is efficient aphrodisiac and is useful in all the diseases caused by three *doshas*. It improves the digestive power. It has qualities similar to those of diamond and promotes valour. It can make the body strong like iron. The *vaikranta* is best among all the rejuvenators and can be used in place of diamond.

वैक्रान्तो वज्रसदृशो देहलोहकरो मत:।
विषघ्नो रसराजश्च ज्वरकुष्ठक्षयप्रणुत्।। 57।।

Vaikranta can bestow both *dehasiddhi* and *lohasiddhi*, like diamond. It cures poisoning, fever, skin diseases and wasting and excells all the minerals.

Origin of Vaikranta

दैत्येन्द्रो माहिष: सिद्ध: सहदेवसमुद्भव:।
दुर्गा भगवती देवी तं शूलेन व्यमर्दयत्।। 58।।
तस्य रक्तं तु पतितं यत्र यत्र स्थितं भुवि।
तत्र तत्र तु वैक्रान्तं वज्राकारं महारसम्।। 59।।
विन्ध्यस्य दक्षिणे भागे ह्युत्तरे वाऽस्ति सर्वत:।
विकृन्तयति लोहानि तेन वैक्रान्तक: स्मृत:।। 60।।

Mahishasura, the king of demons, who born along with gods

and having various powers (*siddhi*) was killed by the goddess Durga, with the help of her *trishula*. Wherever, the blood of the demon dropped on the earth, there originated the *vaikranta*, having the qualities (or form) of diamond.

It is available at the Northern and Southern part of the Vindhya mountain. As it has got the property of cutting other metals (or getting rid of blemishes from the metals), it is called *vaikranta*.

Varieties (Different Opinion) of Vaikranta

श्वेत: पीतस्तथा रक्तो नील: पारावतप्रभ:।
मयूरकण्ठसदृशश्चान्यो मरकतप्रभ:।। 61 ।।
देहसिद्धिकरं कृष्णं पीते पीतं सिते सितम्।
सर्वार्थसिद्धिदं रक्तं तथा मरकतप्रभम्।
शेषे द्वे निष्फले वर्ज्यें वैकान्तमिति सप्तधा।। 62 ।।

Vaikranta is of seven kinds, viz. white, yellow, red, blue, grey (like pigeon), peacock neck (colour) and *marakata mani* (emerald colour).

The *vaikranta* having black colour is used in *dehasiddhi*. The yellow variety is used in gold making where as white in silver making. The red and *marakata* coloured *vaikrantas* are useful in obtaining all the *siddhis*. The remaining blue and grey varieties are discarded as they are useless.

Extraction of Vaikranta

यत्र क्षेत्रे स्थितं चैव वैक्रान्तं तत्र भैरवम्।
विनायकं च सम्पूज्य गृह्णीयाच्छुद्धमानस:।। 63 ।।

Vaikranta is collected from the area where it is available, with pure mind and only after worshipping the Bhairava and Vinayaka.

Shodhana of Vaikranta

वैक्रान्तका: स्युस्त्रिदिनं विशुद्धा: संस्वेदिता: क्षारपटूनि दत्त्वा।
अम्लेषु मूत्रेषु कुलत्थरम्भानीरेऽथवा कोद्रववारिपक्वा:।। 64 ।।

कुलत्थक्वाथसंस्विन्नो वैक्रान्त: परिशुद्ध्यति।। 65 ।।

Sour liquids like *kanji* (gruel) or urines (of urine group) or decoction of *kulattha* (horse gram) or juice of *kadali kanda* or *kodrava* (or the mixiture of all the liquids) are taken and *panchalavana*, *yavakshara* and *tankana* are added. This solution is taken in the *dolayantra* and *vaikranta* is boiled in it, for three days, to purify it. However, it can be purified, also by boiling in *dolayantra* in *kodrava* decoction along or *kulattha* decoction alone, mixed with above substances, for three days.

Marana of Vaikranta

म्रियतेऽष्टपुटैर्गन्धनिम्बुकद्रवसंयुत:।
वैक्रान्तेषु च तप्तेषु हयमूत्रं विनिक्षिपेत्।। 66 ।।
पौन: पुन्येन वा कुर्याद्द्रवं दत्त्वा पुटं त्वनु।
भस्मीभूतं तु वैक्रान्तं वज्रस्थाने नियोजयेत्।। 67 ।।

Vaikranta, after purification, is added with equal quantity of purified sulphur and rubbed in lime juice and subjected to eight *gajaputas* to convert it into *bhasma*.

It can also be calcined, if *vaikranta* is heated intensively and immersed several times, in horse urine and rubbed in horse urine alone and given *putas* until it turns into *bhasma*.

This *vaikranta bhasma* is used in place of diamond *bhasma*.

Sattvapatana of Vaikranta

मोचमोरटपालाशक्षारगोमूत्रभावितम्।
वज्रकन्दनिशाकल्कफलचूर्णसमन्वितम्।। 68 ।।
तत्कल्कं टङ्कणं लाक्षाचूर्णं वैक्रान्तसम्भवम्।
नरसारसमायुक्तं मेषशृङ्गीद्रवान्वितम्।। 69 ।।
पिण्डितं मूकमूषस्थं ध्मापितं च हठाग्निना।
तत्रैव पतते सत्त्वं वैक्रान्तस्य न संशय:।। 70 ।।
सत्त्वपातनयोगेन मर्दितश्च वटीकृत:।
मूषास्थो घटिकाध्मातो वैक्रान्त: सत्त्वमुत्सृजेत्।। 71 ।।

The *ksharas* (alkalies) of *mocharasa*, *morata* and *palasha* are dissolved in cow's urine and *bhavana* of this solvent (either individual solvent or mixture of these together) is given to *vaikranta* powder. Then the bolus of *vajrakanda* and *haridra* and powders of *triphala*, *tankana* (borax), *lakha* and *navasagara* (ammonium chloride) are added to it and rubbed in *meshashringi* juice to prepare a ball. This ball, after drying, is kept in *andhamusha* (closed crucible) and heated in intense fire. This will undoubtedly yield the *sattva* of *vaikranta*.

With the drugs used in *sattvapatana* (like jaggery, *guggulu* etc.), the *vaikranta* is ground, a ball is made and heated intensively in a crucible for one hour, to obtain the *sattva* of *vaikranta*.

Administration of Vaikranta

भस्मत्वं समुपागतो विकृतको हेम्ना मृतेनान्वित:,
पादांशेन कणाज्यवेल्लसहितो गुञ्जामित: सेवित:।
यक्ष्माणं जरणं च पाण्डुगुदजं श्वासं च कासामयं,
दुष्टं च ग्रहणीमुर:क्षतमुखान् रोगाञ्जयेद्देहकृत्।। 72 ।।

One part of *vaikranta bhasma* and quarter part of gold *bhasma* taken together, mixed with powders of *pippali* and *vidanga* and ghee, is consumed in the dosage of one *ratti* (125 mg.). This will cure the diseases like *rajayakshma*, *jara*, *pandu*, *arsha*, *shvasa*, *kasa*, *dushta grahani* and *urakshata*. It also nourishes the body.

सूतभस्मार्धसंयुक्तं नीलवैक्रान्तभस्मकम्।
मृताभ्रसत्त्वमुभयोस्तुलितं परिमर्दितम्।। 73 ।।
क्षौद्राज्यसंयुतं प्रातर्गुञ्जामात्रं निषेवितम्।
निहन्ति सकलान् रोगान् दुर्जयानन्यभेषजै:।
त्रि:सप्तदिवसैर्नृणां गङ्गाम्भ इव पातकम्।। 74 ।।

Parada bhasma half part, blue *vaikranta bhama* one part and mica *sattva bhasma* equal to above two, i.e. one and half part are taken together and rubbed well. One *ratti* (125 mg.) of this mixture is consumed daily morning with ghee and honey by which

diseases which have not been cured by any other medication, are eradicated as quickly as sins are warded off when holy Ganga water is consumed.

MAKSHIKA
(Pyrite)

Origin of Makshika

सुवर्णशैलप्रभवो विष्णुना काञ्चनो रस:।
ताप्यां किरातचीनेषु यवनेषु च निर्मित:।
ताप्य: सूर्यांशुसन्तप्तो माधवे मासि दृश्यते।। 75 ।।

The gold like mineral substance which is produced in the Sumeru mountain was brought and kept by Lord Vishnu on the banks of Tapi river and in the countries called Kiratha (Bhutan), China and Yavana (Turkistan). It is seen that, it shines brightly due to the intense sun rays in the *madhava* (*vaishaka* or May) month.

Properties of Makshika

मधुर: काञ्चनाभास: साम्लो रजतसन्निभ:।
किञ्चित् कषायमधुर: शीत: पाके कटुर्लघु:।
तत्सेवनाज्जराव्याधिविषैर्न परिभूयते।। 76 ।।

The *makshika* resembling to gold has sweet taste where as the one which resembles to silver has little sour, astringent and sweet taste, having *shita virya* and *katu vipaka*, and light in nature. The man will have no effect of senility, diseases and poisons on him by consuming the *makshika*.

माक्षीकधातु: सकलामयघ्न: प्राणो रसेन्द्रस्य परं हि वृष्य:।
दुर्मेललोहद्वयमेलनश्च गुणोत्तर: सर्वरसायनाग्र्य:।। 77 ।।

Makshika dhatu (mineral) is capable of eradicating all the diseases and said to be life of mercury (inevitable in various mercurial operations). It is extremely aphrodisiac and even can bring

together the *dhatus* (metals) having antagonistic properties. *Makshika* has the qualities of curing all the diseases and is best of the rejuvenators.

Two Types of Makshika

माक्षिको द्विविधो हेममाक्षिकस्तारमाक्षिकः।
तत्राऽऽद्यं माक्षिकं कान्यकुब्जोत्थं स्वर्णसन्निभम्।। 78।।
तपतीतीरसम्भूतं पञ्चवर्णसुवर्णवत्।
पाषाणबहलः प्रोक्तस्ताराख्योऽल्पगुणात्मकः।। 79।।

Makshika is of two types — the one *svarna makshika* and other *tara makshika.*

The first one *svarna makshika* is produced in Kanyakubja (Kannauja) area and has lustre of gold. The one which is available at the shores of Tapi river looks like five-coloured gold. The *tara makshika* has more amount of stones and gravels and is less effective.

Shodhana of Makshika

एरण्डतैललुङ्गाम्बुसिद्धं शुद्ध्यति माक्षिकम्।
सिद्धं वा कदलीकन्दतोयेन घटिकाद्वयम्।
तप्तं क्षिप्तं वराक्काथे शुद्धिमायाति माक्षिकम्।। 80।।

Makshika is powdered and bolied for two hours in *eranda taila* and juice of *matulunga.* By this process it is purified. Or it becomes pure even by boiling in *kadali kanda* juice for two hours. It can also be purified by heating in intense fire and immersing in *triphala* decoction for seven times.

Marana of Makshika

मातुलुङ्गाम्बुगन्धाभ्यां पिष्टं मूषोदरे स्थितम्।
पञ्चक्रोडपुटैर्दग्धं म्रियते माक्षिकं खलु।। 81।।
एरण्डस्नेहगव्याज्यैर्मातुलुङ्गरसेन वा।

खर्परस्थं दृढं पक्वं जायते धातुसन्निभम्।
एवं मृतं रसे योज्यं रसायनविधावपि।। 82।।

Svarna makshika and equal quantity of sulphur are mixed together and ground well in *matulunga* juice. Then it is dried, kept in crucible or *sharava samputa* and subjected to five *gajaputas* (or *varahaputa*) to obtain the *bhasma* of *svarna makshika.*

If *makshika* is gound in *eranda* oil or ghee or *matulunga* juice, kept in *sharva samputa* and subjected to intensive heat, the beautiful *bhasma* looking like *svarna gairika* (red ochre) is obtained. This *bhasma* is useful in *rasayana* therapy.

Sattavapatana of Makshika

त्रिंशांशनागसंयुक्तं क्षारैरम्लैश्च मर्दितम्।
ध्मातं प्रकटमूषायां सत्त्वं मुञ्चति माक्षिकम्।। 83।।
सप्तवारं परिद्राव्यं क्षिप्तं निर्गुण्डिकारसे।
माक्षीकसत्त्वसम्मिश्रं नागं नश्यति निश्चितम्।। 84।।
क्षौद्रगन्धर्वतैलाभ्यां गोमूत्रेण घृतेन च।
कदलीकन्दसारेण भावितं माक्षिकं मुहुः।
मूषायां मुञ्चति ध्मातं सत्त्वं शुल्वनिभं मृदु।। 85।।

Makshika powder is added with 1/30 part of purified *naga* (lead or its *bhasma*), double the quantity of *ksharatraya* (*svarjika, yava* and *tankana*), rubbed well in sour liquids like *kanji*, lime juice etc., prepared a ball, dried, kept in an open crucible and heated intensively. By this *sattva* of *makshika* is available. As there may be little portion of lead is remaining in this *sattva*, it is kept in a crucible to melt and dipped in *nirgundi* juice for seven times.

Makshika powder is ground in honey, *eranda* oil, cow's urine, cow's ghee and *kadali kanda* juice, seven times in each of the liquid. Then a ball is prepared, dried, kept in crucible and heated. This would yield a soft *sattva* like copper.

Properties of Purified Makshika Sattva

गुञ्जाबीजसमच्छायं द्रुतद्रावं च शीतलम्।
ताप्यसत्त्वं विशुद्धं तद्देहलोहकरं परम्।। 86।।

The excellent *makshika sattva* is red like *gunja* seed, which melts very quickly and that which has *shitala* properties. It is best in both *dehasiddhi* and *lohasiddhi*.

Administration of Sattva

माक्षीकसत्त्वं रसेन पिष्टं कृत्वा विलीने च बलिं निधाय।
सम्मिश्र्य सम्मर्द्य च खल्वमध्ये निःक्षिप्य सत्त्वं द्रुतिमभ्रकस्य।। 87 ।।
विधाय गोलं लवणाख्ययन्त्रे पचेद्दिनार्द्धं मृदुवह्निना च।
स्वतः सुशीतं परिचूर्ण्य सम्यग्वल्लोन्मितं व्योषविडङ्गयुक्तम्।। 88 ।।
संसेवितं क्षौद्रयुतं निहन्ति जरां सरोगान्त्वपमृत्युमेव।
दुस्साध्यरोगानपि सप्तवासरैः नैतेन तुल्योऽस्ति सुधारसोऽपि।। 89 ।।

Equal quantity of *makshika sattva* and purified mercury are mixed well together and rubbed until the mixture becomes *pishti* (soft mass). Then adding purified sulphur with it, grinding is continued. *Abhraka druti* is added to this mixture and a ball is made. This ball is subjected to mild heat in *lavana yantra* for twelve hours. After self cooling, taken out of the *yantra* and powdered. This powder in the dose of one *valla* (1 to 1.5 *ratti* or 125 mg. to 200 mg.) is consumed for seven days along with equal quantity of *shunthi*, *maricha*, *pippali*, *vidanga*, and honey. This will ward off senility, untimely death and dreadful diseases within seven days. Even *amruta* can not equate this.

Liquefying the Sattva

एरण्डोत्थेन तैलेन गुञ्जा क्षौद्रं च टङ्कणम्।
मर्दितं तस्य वापेन सत्त्वं माक्षिकजं द्रवेत्।। 90 ।।

Makshika sattva is melted and the mixture prepared by grinding the *gunja*, honey and *tankana* (borax), in equal quantity, is added to it. By this, *makshika sattva* remains liquid.

VIMALA
(Iron Pyrite)

Varieties of Vimala

विमलस्त्रिविधः प्रोक्तो हेमाद्यस्तारपूर्वकः।
तृतीयः कांस्यविमलस्तत्तत्कान्त्या स लक्ष्यते।। 91 ।।
वर्तुलः कोणसंयुक्तः स्निग्धश्च फलकान्वितः।
मरुत्पित्तहरो वृष्यो विमलोऽतिरसायनः।। 92 ।।
पूर्वो हेमक्रियासूक्तो द्वितीयो रूप्यकृन्मतः।
तृतीयो भेषजे तेषु पूर्वपूर्वो गुणोत्तरः।। 93 ।।

Vimala is of three varities, viz. *hema vimala* (*svarna vimala*), *tara vimala* (*roupya vimala*) and *kamsya vimala*. These *vimalas* shine like gold, silver and bronze, respectively.

Vimala is roundish in its shape and has angles as well as planes and is smooth. It alleviates *vata* and *pitta*, is very good aphrodisiac as well as rejuvenator.

The *svarna vimala*, mentioned earlier is useful in *svarna karya* (converting lower metals into gold). *Roupya vimala* in *roupya karma* (coverting the lower metals into silver) and *kamsya vimala* in the preparation of medicines. Among these, *roupya vimala* is considered better than *kamsya vimala* and *svarna vimala* is considered better than *roupya vimala*.

Shodhana of Vimala

आटरूषजले स्विन्नो विमलो विमलो भवेत्।
जम्बीरस्वरसे स्विन्नो मेषशृङ्गीरसेऽथवा।
आयाति शुद्धिं विमलो धातवश्च यथाऽपरे।। 94 ।।

If *vimala* is boiled in *vasa* juice or decoction, with the help of *dola yantra*, it becomes pure. Similarly, it can also be purified by doing *svedana* (boiling) in lemon juice or *meshashringi* juice. In the similer way the purification of other metals can also be performed.

Marana of Vimala

गन्धाश्मलकुचाम्लैश्च म्रियते दशभिः पुटैः ।। 95 ।।

If equal quantity of sulphur is added into the fine powder of *vimala*, rubbed with lemon juice and *lakucha* juice, kept in *sharava samputa* and given ten *putas, vimala bhasma* can be made available.

Sattvapatana of Vimala

सटङ्कलकुचद्रावैर्मेषशृङ्ग्याश्च भस्मना ।
पिष्टो मूषोदरे लिप्तः संशोष्य च निरुध्य च ।। 96 ।।
षट्प्रस्थकोकिलैर्ध्मातो विमलः सीससन्निभः ।
सत्त्वं मुञ्चति तद्युक्तो रसः स्यात्स रसायनः ।। 97 ।।

Equal quantity of *tankana* and ash of *meshashringi* are mixed with *vimala* powder and after rubbing well with *lakucha* juice kept in *sattvapatana* crucible (or it is pasted inside it). After drying, the mouth of crucible is closed and kept in the *agni* prepared out of the coal weighing six *prastha*. (1 *prastha* is equal to 64 *tolas* or 730 gms. approx.) and bowled. This yields the *sattva* resembling to lead (or moon). If this is consumed with mercury (*bhasma*), it acts as good rejuvenator.

Other Methods

विमलं शिग्रुतोयेन काङ्क्षीकासीसटङ्कणम् ।
वज्रकन्दसमायुक्तं भावितं कदलीरसे ।। 98 ।।
मोक्षकक्षारसंयुक्तं ध्मापितं मूकमूषगम् ।
सत्त्वं चन्द्रार्कसङ्काशं पतते नात्र संशयः ।। 99 ।।

Fine powder of *vimala* is mixed with equal quantity of each of *sphatika, kasisa* and *tankana* and *vajrakanda* (in powder form) and ground in decoction of *shigru* bark. Then *mushka kshara* is added in that equal to that of *vimala* and given *kadali-kanda* juice *bhavana*. It is then confined to *sattvapatana* process and heated in intense fire. By this process, *vimala sattva* which is bright like moon rays can be obtained undoubtedly.

Administration of Vimala

तत्सत्त्वं सूतसंयुक्तं पिष्टं कृत्वा सुमर्दितम् ।
विलीनं गन्धके क्षिप्त्वा जारयेत् त्रिगुणालकम् ।। 100 ।।
शिलां पञ्चगुणां चापि बालुकायन्त्रके खलु ।
तारभस्म दशांशेन तावद्वैक्रान्तकं स्मृतम् ।। 101 ।।
सर्वमेकत्र सञ्चूर्ण्य पटेन परिगाल्य च ।
निक्षिप्य कूपिकामध्ये परिपूर्य प्रयत्नतः ।। 102 ।।
लीढो व्योषवरान्वितो विमलको युक्तो घृतैः सेवितो,
हन्याद् दुर्भगकृज्ज्वरान् श्वयथुकं पाण्डुप्रमेहारुची: ।
मूलार्त्तिं ग्रहणीं च शूलमतुलं यक्ष्मामयं कामलाम्,
सर्वान्पित्तमरुद्गदान्किमपरैर्योगैरशेषामयान् ।। 103 ।।

Pisthi (soft mass) is prepared by grinding together the fine powder of *vimala sattva* and equal quantity of purified mercury. Then, in this equal quanity of *gandhaka* is added and *jarana* is done. To this, three parts of purified *haratala* (orpiment), five part of purified *manahshila* (realgar) are added and is triturated. Then, it is kept in a *baluka yantra* and heated. After self cooling, the glass bottle is taken away from the *yantra* and the resultant substance is added with one ten of silver *bhasma* and same amount of *vaikranta bhasma* and rubbed well. Then, this power is strained through cloth and collected. (According to some, *roupya* and *vaikranta bhasma* are added with *haratala* etc. and heated.)

This *vimala rasayana* in the dosage of two-three *ratti* (250-375 mg.) is consumed along with *triphala*, *trikatu* and ghee. This will cure the diseases like severe and deadly *jvara, shotha, pandu, prameha, agnimandya, arsha, grahani, shula, kamala* and all kinds of disorders of *vata* and *pitta*. This *rasayana*, if administered with various *anupanas* (or with different combinations), can cure all the diseases.

SHILAJATU
(Asphaltum Panjabinum)

Varieties of Shilajatu

शिलाजतुर्द्विधा प्रोक्तो गोमूत्राद्यो रसायनः।
कर्पूरपूर्वकश्चान्यस्तत्राद्यो द्विविधः पुनः।
ससत्त्वश्चैव निःसत्त्वस्तयोः पूर्वो गुणाधिकः।। 104 ।।

Shilajatu is of two types, viz. *gomutra shilajatu* and *karpura shilajatu.* The former is best rejuvenator.

Gomutra shilajatu itself is of two types, viz. *sasattva* (with essence) and *nihsattva* (without essence). Obviously, the former is said to be more effective.

Origin of Shilajatu

ग्रीष्मे तीव्रार्कतप्तेभ्यः पादेभ्यो हिमभूभृतः।
स्वर्णरूप्यार्कगर्भेभ्यः शिलाधातुर्विनिःसरेत्।। 105 ।।

In Himalaya mountain, from the rocks consisting of metals like gold, silver, copper etc., *shilajatu* oozes out, due to the heat of the scorching sun rays in summer. It is also available at the planes of near by mountains.

स्वर्णगर्भगिरेर्जातो जपापुष्पनिभो गुरुः।
स स्वल्पतिक्तः सुस्वादुः परमं तद्रसायनम्।। 106 ।।
रौप्यगर्भगिरेर्जातं मधुरं पाण्डुरं गुरु।
शिलाजं पित्तरोगघ्नं विशेषात्पाण्डुरोगहृत्।
ताम्रगर्भगिरेर्जातं नीलवर्णं घनं गुरु।। 107 ।।

The *shilajatu* which is available in the hills, where gold is available, is red in colour like *japa* flower. It is heavy, slightly bitter and sweet and is very good rejuvenator.

The *shilajatu*, available in the mountains, where silver is also available, is sweet in taste, white (yellowish) in colour and heavy. Apart from curing diseases orignated by *pitta dosha*, it is useful in anemia.

The *shilajatu* from the mountains, where copper is mined, is blue in colour, solid, heavy, has bitter taste and hot in nature. It alleviates *kapha* and *vata dosha* and beneficial in *kshaya.*

Tests of Good Shilajatu

वह्नौ क्षिप्तं भवेद्यत्तल्लिङ्गाकारमधूमकम्।
सलिलेऽप्यविलीनं च तच्छुद्धं हि शिलाजतु।। 108 ।।

If, the *shilajatu* of good origin is placed on fire, it burns without smoke and forms a shape of a *linga.* Similarly, if it is put in the water, it dissolves immediately. Such a kind of *shilajatu* is said to be pure (best).

Properties of Shilajatu

नूनं सज्वरपाण्डुशोफशमनं मेहाग्निमान्द्यापहं,
मेदच्छेदकरं च यक्ष्मशमनं शूलामयोन्मूलनम्।
गुल्मप्लीहविनाशनं जठरहृच्छूलघ्नमामापहं,
सर्वत्वग्गदनाशनं किमपरं देहे च लोहे हितम्।। 108 ।।
रसोपरससूतेन्द्ररत्नलोहेषु ये गुणाः।
वसन्ति ते शिलाधातौ जरामृत्युजिगीषया।। 109 ।।

Shilajatu eradicates *jvara, pandu, shotha, prameha, agnimandya, sthaulya, kshaya, shula.*

It is also cures *gulma*, enlargment of spleen, *udara, hritshula*, and all kinds of skin diseases. It also reduces the *ama.* Both in *dehasiddhi* and *lohasiddhi*, the *shilajatu* has an important place.

It is seen that the properties which are assembled in the *rasadravyas* like *abhraka* etc., *upsara* like *gandhaka* etc. and *parada* and in precious stones and in all the metals, are concentrated in *shilajatu*, in order to drive away the senility and death.

Shodhana of Shilajatu

क्षाराम्लगोजलैर्धौतं शुद्ध्यत्येव शिलाजतु।
शिलाधातुं च दुग्धेन त्रिफलामार्कवद्रवैः।। 110 ।।

लोहपात्रे विनिक्षिप्य शोधयेदतियत्नतः।
क्षाराम्लगुग्गुलोपेतैः स्वेदनीयन्त्रमध्यगैः।
स्वेदितां घटिकामानाच्छिलाधातुर्विशुद्ध्यति ।। 111 ।।

If *shilajatu* is washed (or soaked) first in solvent of *kshara* (*yavak-shara*) and then in sour liquids (like *kanji*, lemon juice etc.), it becomes pure.

Purified *shilajatu* is available, if it is kept for one day in an iron vessel soaked either in milk or decoction of *triphala* or juice of *bhringaraja*.

Yavakshara, kanji and *guggulu* are taken together in *svedani yantra* (and after placing *shilajatu* on the cloth tied on the mouth of the vessel), *svedana* is done for one hour to make *shilajatu* purified.

Marana of Shilajatu

शिलया गन्धतालाभ्यां मातुलुङ्गरसेन च।
पुटितो हि शिलाधातुर्म्रियतेऽष्टगिरिण्डकैः ।। 112 ।।

Equal quantity of purifed *manahshila* (realgar), purified sulphur and purified *haratala* (orpiment) with the same amount of purified *shilajatu*, are taken. The mixture is then, ground in *matulunga* juice and subjected to *puta* in the fire prepared by eight *vanopalas* (cowdung cakes). This yields the *bhasma* of *shilajatu*.

Administration of Shilajatu

भस्मीभूतशिलोद्भवमं समतुलं कान्तं च वैक्रान्तकं
युक्तं च त्रिफलाकटुत्रिकघृतैर्वल्लेन तुल्यं भजेत्।
पाण्डौ यक्ष्मगदे तथाग्निसदने मेहेषु मूलामये
गुल्मप्लीहमहोदरे बहुविधे शूले च योन्यामये ।। 113 ।।
सेवेत यदि षण्मासं रसायनविधानतः।
वलीपलितनिर्मुक्तो जीवेद्वर्षशतं सुखी ।। 114 ।।

Bhasmas of *shilajatu*, *kantaloha* and *vaikranta* are mixed together and added to *triphala* and *trikatu* powders. If this is administered in the dosage of one *valla* (1 to 1.5 *ratti* or 125 to 200 mg.) with ghee, it can cure the diseases like *pandu, kshaya, agnimandya, prameha, arsha, gulma*, enlargement of spleen, *udara, shula* and gynaecological disorders.

If the above medicament is taken according to rejuvenative therapy for six months, *vali* (wrinkles in the skin), *palita* (graying of hair) disappear and the man lives for hundred years.

Sattvapatana of Shilajatu

पिष्ट्वा द्रावणवर्गेण साम्लेन गिरिसम्भव्।
क्षिप्त्वा मूषोदरे रुद्ध्वा गाढैर्ध्मातं हि कोकिलैः।
सत्त्वं मुञ्चेच्छिलाधातुस्तत्क्षणाल्लोहसन्निभम् ।। 115 ।।

Shilajatu is ground with the drugs of *dravana varga* and *amla varga*, kept in a crucible, sealed and heated in intensive fire of coal. This yields *shilajatu sattva*, looking like iron.

KARPURA SHILAJATU

पाण्डुरं सिकताकारं कर्पूराद्यं शिलाजतु।
मूत्रकृच्छ्राश्मरीमेहकामलापाण्डुनाशनम् ।। 116 ।।

Karpura shilajatu is white with little tinge of yellow and crystalline like sand. It overcomes the diseases like *mutrakricchra, ashmari, prameha, kamala* and *pandu*.

Shodhana

एलातोयेन सम्भिन्नं सिद्धं शुद्धिमुपैति तत्।
नैतस्य मारणं सत्त्वपातनं विहितं बुधैः ।। 117 ।।

If *karpura shilajatu* is ground in *ela* decoction (or boiled in it), it becomes pure. The scholars have not mentioned the *marana* as well as *sattva patana* of this *karpura shilajatu*.

SASYAKA (TUTTHA)
(Peacock Ore)

Origin of Sasyaka

पीत्वा हालाहलं वान्तं पीतामृतगरुत्मता।
विषेणामृतयुक्तेन गिरौ मरकताह्वये।। 118।।
तद्वान्तं हि घनीभूतं सञ्जातं सस्यकं खलु।
मयूरकण्ठसच्छायं भाराढ्यमतिशस्यते।। 119।।

The Garuda, consumed *halahala visha* (poison) after drinking the nectar. Hence, he vomitted the poison mixed with the nectar on Nilagiri mountain. Later it (vomitus) solidified and turned into *sasyaka.*

The *sasyaka* which has the colour of neck of peacock, which is bright and heavy, is said to be best.

द्रव्यं विषयुतं यत्तद् द्रव्याधिकगुणं भवेत्।
सुधाहालाहलैर्युक्ता सुधाधिकगुणा तथा।। 120।।

The substance which has been processed with poison or which is mixed with poisons has more beneficial qualities than the one divoid of this (poison). Similarly, the nectar which is mixed with *halahala visha* has more excellent qualities than mere *amrita*, and is more potent.

Properties of Sasyaka

निःशेषदोषविषहृद्गुदशूलमूलकुष्ठाम्लपैत्तिकविबन्धहरं परञ्च।
रसायनं वमनरेककरं गरघ्नं श्वित्रापहं गदितमत्र मयूरतुत्थम्।। 121।।

Sasyaka alleviates all the *doshas* like *vata* etc. in the body. It conquers the disorders like poisoning, *hridroga*, *shula*, *arsha*, *kustha*, *amlapitta*, *vibandha*, etc. *Sasyaka* is a good rejuvenator and is emetic as well as purgative. It eradicates *garavisha* and *shvetakustha.*

Shodhana of Sasyaka

सस्यकं शुद्धिमाप्नोति रक्तवर्गेण भावितम्।
स्नेहवर्गेण संसिक्तं सप्तवारमदूषितम्।। 122।।

दोलायन्त्रेण सुस्विन्नं सस्यकं प्रहरत्रयम्।
गोमहिष्याजमूत्रेषु शुद्ध्यते-(तुत्थखर्परम्) ।। 123।।

Sasyaka is purified by giving seven *bhavanas* of the decoction of the drugs belonging to *raktavarga* or by boiling in the substances belonging to *snehavarga*, for seven times (or boiling in *snehavarga* drugs after grinding in *raktavarga* drugs).

The *sasyaka (khapara tuttha)* can also be purified by doing *svedana* (either in cow's urine or in buffalo's urine or in goats urine, in *dola yantra* for three hours.

Marana of Sasyaka

लकुचद्रावगन्धाश्मटङ्कणेन समन्वितम्।
निरुध्य मूषिकामध्ये म्रियते कौक्कुटैः पुटैः।। 124।।

Equal quantities of *sasyaka*, *gandhaka* and *tankana* are ground with juice of *lakucha*, confined to crucible and given *kukkuta puta* to obtain the *bhasma* of *tuttha.*

Sattvapatana of Sasyaka

सस्यकस्याथ चूर्णं तु पादसौभाग्यसंयुतम्।
करञ्जतैलमध्यस्थं दिनमेकं निधापयेत्।। 125।।
अन्धमूषास्यमध्यस्थं ध्मापयेत्कोकिलाग्निना।
इन्द्रगोपाकृति चैव सत्त्वं भवति शोभनम्।। 126।।

Purified *sasyaka* powder and one fourth of purified *tankana* are mixed and kept in *karanja* oil for one day. Then it is taken out and a ball is prepared out of it. Confining it into a crucible, heated in intensive fire made of coal. This yields the *sattva* which is red like *indragopa* (a red insect).

Other Methods

निम्बूद्रवाल्पटङ्काभ्यां मूषामध्ये निरुध्य च।
ताम्ररूपं परिध्मातं सत्त्वं मुञ्चति सस्यकम्।। 127।।

शुद्धं सस्यं शिखिक्रान्तं पूर्वभेषजसंयुतम्।
नानाविधानयोगेन सत्त्वं मुञ्चति निश्चितम्।। 128 ।।

If purified *sasyaka* is mixed with one fourth of *tankana*, ground in lemon juice, kept in a crucible and blowed in the fire, the copper coloured *sattva* is available.

The purified *sasyaka* is ground with various medicinal substances and subjected to different kinds of *sattvapatana* methods, as said earlier.

Administration (Tuttha Mudrika)

सत्त्वमेतत्समादाय खरभूनागसत्त्वयुक्।
तन्मुद्रिका कृतस्पर्शा शूलघ्नी तत् क्षणाद्भवेत्।। 129 ।।
चराचरं विषं भूतडाकिनीदृग्गतं जयेत्।
मुद्रिकेयं विधातव्या दृष्टप्रत्ययकारिका।। 130 ।।

Sattvas of both *sasyaka* and *bhunaga* (earthworm) are mixed and melted to prepare a ring. This ring, if applied over the site of pain, the pain will vanish instantly. It overcomes both *sthavara* (inorganic) and *jangama* (organic) type of poisons and also the *dristidoshas* (ill vision) of the evil spirits (*bhuta, dakini* etc.). This kind of ring is evidently a boon.

रामवत्सोमसेनानीर्मुद्रितेऽपि तथाऽक्षरम्।
हिमालयोत्तरे पार्श्वे अश्वकर्णो महाद्रुमः।।131 ।।
तत्र शूलं समुत्पन्नं तत्रैव विलयं गतम्।
मन्त्रेणानेन मुद्राम्भो निपीतं सप्तमन्त्रितम्।
सद्यःशूलहरं प्रोक्तमिति भालुकिभाषितम्।। 132 ।।

"This ring is in the name of Kartikeya as there is a ring in the name of Lord Rama. *Shula* (pain) was originated in the tree called Ashvakarna, situated at the northern side of the Himalaya and the pain vanished there alone."

The ring is kept in water and the said (above) *mantra* is chanted. If this water is consumed, the pain is relieved immediatly. This is referred by *bhaluki* in *bhaluki tantra.*

अनया मुद्रया तप्तं तैलमग्नौ सुनिश्चितम्।
लेपितं हन्ति वेगेन शूलं यत्र क्वचिद्भवेत्।
सद्यः सूतिकरं नार्याः सद्यो नेत्ररुजापहम्।। 133 ।।

The said *tuttha mudrika* (ring) is heated strongly and immersed in oil (or boiled in the oil), pain is reduced if this oil is rubbed on the site of pain. If it is applied over the vagina, there would be quick and easy delivery of the child. Similarly, if dropped in the eyes, diseases of the eyes too are relieved very soon.

CHAPALA
(Bismuth Ore)

Varieties of Chapala

गौरः श्वेतोऽरुणः कृष्णश्चपलस्तु चतुर्विधः।
हेमाभश्चैव ताराभो विशेषाद्रसबन्धनः।। 134 ।।
शेषौ तु मध्यौ लाक्षावच्छीघ्रद्रावौ तु निष्फलौ।
वङ्गवद् द्रवते वह्नौ चपलस्तेन कीर्तितः।। 135 ।।

Chapala is of four types viz. *goura* (white with yellow tinge), *shveta* (white), *aruna* (red) and *krishna* (black). Among them, the *goura chapala* which is like gold and *shveta chapala*, which resembles to silver are useful, especially in *rasa bandhana.* The remaining two, i.e. *aruna* and *krishna* varieties are medium in their qualities. However, if they melt like *laksharasa* (lac) when put in the fire, they are considered to be useless.

As it melts very quickly like *vanga* (tin), it is named as *chapala.*

Properties of Chapala

चपलो लेखनः स्निग्धो देहलोहकरो मतः।
रसराजसहायः स्यात्तिक्तोष्णमधुरो मतः।। 136 ।।
चपलः स्फटिकच्छायः षडस्रः स्निग्धको गुरुः।
त्रिदोषघ्नोऽतिवृष्यश्च रसबन्धविधायकः।। 137 ।।

Chapala causes *lekhana* and is *snigdha* (unctuous). It makes

the body strong like iron. It has *tikta rasa* (bitter taste), *ushana virya* (hot in nature), *madhura vipaka* (sweet after digestion) and increases the qualities of mercury (i.e. helps in *parada bandhana*).

Chapala shines like *sphatika* (rock crystal) and is *snigdha* (unctuous) and heavy. It alleviates all the three *doshas*, is good aphordisiac and helps in *parada bandhana* process.

महारसेषु कैश्चिद्धि चपलः परिकीर्तितः ।। 138 ।।

Some of the authors (*rasa siddhas*), consider *chapala* as one of the *maharasas*.

Shodhana of Chapala

जम्बीरकर्कोटकशृङ्गवेरैर्विभावनाभिश्चपलस्य शुद्धिः ।। 139 ।।

The powdered *chapala*, if ground seven times in each of the liquids, viz. lemon juice, *karkotaka* juice and ginger juice, it becomes pure.

Sattvapatana of Chapala

शैलं तु चूर्णयित्वा तु धान्याम्लोपविषैर्विषैः ।
पिण्डं बद्ध्वा तु विधिवत्पातयेच्चपलं तथा ।। 140 ।।

The *chapala shila* is powdered, given *bhavanas* of *kanji*, *visha* and *upavisha*, made into a ball, kept in a crucible and *sattva* is extracted subjecting to *sattvapatana* process.

RASAKA (KHARPARA)
(Zinc Ore / Calamine)

Varieties of Rasaka

रसको द्विविधः प्रोक्तो दर्दुरः कारवेल्लकः ।
सदलो दर्दुरः प्रोक्तो निर्दलः कारवेल्लकः ।
सत्त्वपाते शुभः पूर्वो द्वितीयश्चौषधादिषु ।। 141 ।।

Rasaka is of two types, viz. *dardura* and *karavellaka*. The one

which has layers, is called *dardura* and the one devoid of the layers, is *karavellaka*. The former *dardura* is best for *sattvapatana* where as the *karavellaka* is useful in medicinal applications.

Properties of Rasaka

रसकः सर्वमेहघ्नः कफपित्तविनाशनः ।
नेत्ररोगक्षयघ्नश्च लोहपारदरञ्जनः ।। 142 ।।
नागार्जुनेन सन्धिष्टौ रसश्च रसकावुभौ ।
श्रेष्ठौ सिद्धरसौ ख्यातौ देहलोहकरौ परम् ।। 143 ।।
रसश्च रसकश्चोभौ येनाग्निसहनौ कृतौ ।
देहलोहमयी सिद्धिर्दासी तस्य न संशयः ।। 144 ।।

Rasaka cures all types of *pramehas*. It alleviates *kapha* and *kshaya roga*. It has the quality of colouring the metals as well as mercury.

The *rasaka* and mercury are considered as best *siddha rasas* by Nagarjuna. He also confirms that, they can bestow with, both *dehasiddhi* and *lohasiddhi*.

Those who can make these mercury and *rasaka* sustainable to fire (that they do not melt or evaporate on heating), they can acquire and keep in their control, both *dehasiddhi* and *lohasiddhi*, like a maidservent.

Shodhana of Rasaka

कटुकालाबुनिर्यास आलोड्य रसकं पचेत् ।
शुद्धं दोषविनिर्मुक्तं पीतवर्णं च जायते ।। 145 ।।
खर्परः परिसन्तप्तः सप्तवारं निमज्जितः ।
बीजपूररसस्यान्तर्निर्मलत्वं समश्नुते ।। 146 ।।
नृमूत्रे वाऽश्वमूत्रे वा तक्रे वा काञ्जिकेऽथवा ।
प्रताप्य मज्जितं सम्यक् खर्परं परिशुद्ध्यति ।। 147 ।।
नरमूत्रे स्थितो मासं रसको रञ्जयेद् ध्रुवम् ।
शुद्ध ताम्रं रसं तारं शुद्धस्वर्णप्रभं यथा ।। 148 ।।

Kharpara (*rasaka*) is powdered, mixed with *katuthumbi* juice in a vessel and boiled, stirring it well. By this, *rasaka* becomes pure, devoid of blemishes and attains yellow colour.

If *kharpara* is heated well and dipped in *bijapura* juice for seven times, it becomes pure.

To purify *kharpara*, it is heated well and immersed seven times in, either human urine or horse urine or butter milk.

Kharpara is kept immersed in human urine for one month (fresh urine is taken daily). By this *kharpara* becomes pure and capable of giving golden colour (or lustre) to copper, silver and mercury.

Sattvapatana of Rasaka

हरिद्रात्रिफलारालसिन्धुधूमैः सटङ्कणैः।
सारुष्करैश्च पादांशैः साम्लैः सम्मर्द्य खर्परम्।। 149 ।।
लिप्तं वृन्ताकमूषायां शोषयित्वा निरुध्य च।
मूषां मुखोपरि न्यस्य खर्परं प्रधमेत्ततः।। 150 ।।
खर्परे प्रद्रुते ज्वाला भवेन्नीला सिता यदि।
तदा सन्दंशतो मूषां धृत्वा कृत्वा त्वधोमुखीम्।। 151 ।।
शनैरास्फालयेद्भूमौ यथा नालं न भज्यते।
वङ्गाभं पतितं सत्त्वं समादाय नियोजयेत्।
एवं त्रिचतुरैर्वारैः सर्वं सत्त्वं विनिस्सरेत्।। 152 ।।

One part of purified *rasaka* powder and one fourth quantity of each of *haridra, triphala, laksharasa, saindhava lavana, grahadhuma* (*suta* in the kitchen), *bhallataka* and *tankana* are taken together, ground in either *kanji* or lemon juice. The resultant paste is applied inside the *vrantaka musha* (crucible of shape of a brinjal), dried, sealed the crucible and heated. When the *rasaka* inside melts, bluish white flame appears at the mouth of the crucible. Then the crucible is taken out and held with the help of a pair of tongs and making crucible upside down, it is beaten on the floor. Care is taken that the neck or (cylindrical part) of the crucible is not broken. This process yields the *kharpara sattva* resembling to

vanga (tin). This is collected and kept for various purposes. Thus, same process is repeated for three-four times, to collect the remaining *kharpara sattva*.

साभयाजतुभूनागनिशाधूमजटङ्कणम्।
मूकमूषागतं ध्मातं सत्त्वं मुञ्चति खर्परम्।। 153 ।।
लाक्षागुडाऽऽसुरीपथ्या हरिद्रासर्जटङ्कणैः।
सम्यक् सञ्चूर्ण्य तत्पक्वं गोदुग्धेन घृतेन च।। 154 ।।
वृन्ताकमूषिकामध्ये निरुध्य गुटिकाकृतम्।
ध्मात्वा ध्मात्वा समाकृष्य ढालयित्वा शिलातले।। 155 ।।
सत्त्वं वङ्गाकृति ग्राह्यं रसकस्य मनोहरम्।
यद्वा जलयुतां स्थालीं निखनेत्कोष्ठिकोदरे।। 156 ।।
सच्छिद्रं तन्मुखे मल्लं तन्मुखेऽधोमुखीं क्षिपेत्।
मूषोपरि शिखित्रांश्च प्रक्षिप्य प्रधमेद् दृढम्।
पतितं स्थालिकानीरे सत्त्वमादाय योजयेत्।। 157 ।।

One part of *rasaka* with quarter part each of *haritaki, shilajatu* (or *laksha*), earthworm, *haridra grahadhuma* (*suta*) and *tankana* are taken together, rubbed (in *kanji*), kept in *andha musha* (closed crucible) and blowed in intensive fire to obtain the *sattva* of *kharpara*.

Equal quantities of *laksha* (lac), jaggery, *rajika, haritaki, haridra, rala* and *tankana* are taken along with purified *karpara*, powdered, boiled in cow's milk and ghee, prepared a ball, kept in a crucible and blowed in the fire. Then the crucible is taken out from the fire, tapped on the floor as said before, with the help of a pair of tongs. This yields the beautiful *sattva* resembling to *vanga* (tin).

A pit is made below the *sattvapatana koshthi* and in that, a vessel filled with water is kept. It is covered with a large *sharava* (earthern plate), with holes in it. Then the *rasaka*, which is rubbed with various drugs as mentioned earlier, is kept in a crucible. This crucible then is kept upside down on the *sharava* in such a way that the month of the crucible covers exactly the surface of the *sharava*. The joining space of the two vessels, is sealed prop-

erly. Then coal is spread around the crucible and after ingiting, blowed with the help of bellows. The substance present in the crucible is melted and prepared *sattva* is collected in the water below. It is taken out and used.

Sattva Marana of Rasaka

तत्सत्त्वं तालकोपेतं प्रक्षिप्य खलु खर्परे।
मर्दयेल्लोहदण्डेन भस्मीभवति निश्चितम्।। 158।।

Kharpara sattva is mixed with equal quantity of purified *haratala* (orpiment) and taken in an iron pan. It is kept on fire and kept on stirring until the *bhasma* of *kharpara sattva* is obtained.

Administration of Rasaka

तद्भस्म मृतकान्तेन समेन सह योजयेत्।
अष्टगुञ्जामितं चूर्णं त्रिफलाक्काथसंयुतम्।। 159।।
कान्तपात्रस्थितं रात्रौ तिलजप्रतिवापकम्।
निषेवितं निहन्त्याशु मधुमेहमपि ध्रुवम्।। 160।।
पित्तं क्षयं च पाण्डुं च श्वयथुं गुल्ममेव च।
रक्तगुल्मं च नारीणां प्रदरं सोमरोगकम्।। 161।।
योनिरोगानशेषांश्च विषमांश्च ज्वरानपि।
रजःशूलं च नारीणां कासं श्वासञ्च हिध्मिकाम्।। 162।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनार्वाग्भटाचार्यस्य
कृतौ रसरत्नसमुच्चये रसोत्पत्तिर्नाम द्वितीयोऽध्यायः।।

Bhasma of *kharpara sattva* is mixed with equal quantity of *bhasma* of *kantaloha* (magnetic iron). Eight *ratti* (1 gm.) of this mixture is taken in the vessel made of magnetic iron, mixed with *triphala* decoction and kept overnight. Next day morning, little gingelly oil is added to it and consumed. This will cure *madhumeha*, aggrevation of *pitta*, *kshaya*, *pandu*, *shotha*, *gulma*, *raktagulma* in women, *pradara*, *somaroga*, different types of *yonirogas*, *arthavashula*, *kasa*, *shvasa*, *hikka* etc.

This completes the second chapter called *Maharasa* in Rasaratna Samuchchaya, written by Vagbhattacharya, the son of Vaidyapati Shri Simhagupta.

3
Uparasa & Sadharana Rasa

UPARASA

गन्धाश्मगैरिकासीसकाङ्क्षीतालशिलाञ्जनम्।
कुङ्कुष्ठं चेत्युपरसाश्चाष्टौ पारदकर्मणि।। 1।।

Gandhaka (sulphur), *kasisa* (ferrous sulphate), *kankshi* (*sphatika*-alum), *haratala* (orpiment), *manahshila* (realgar), *angaja* (antimony-lead compound), and *kankustha* are the eight *uparasas*, which are useful in *parada karmas* (mercurial operations).

GANDHAKA
(Sulphur)

गन्धकस्य तु माहात्म्यं तद् गुह्यं वद मे प्रभो!।

Oh, Lord! please enlighten me of the greatness and properties and actions of sulphur (asked by Parvati to Shiva).

Origin of Gandhaka

श्वेतद्वीपे पुरा देवि सर्वरत्नविभूषिते।
सर्वकाममये रम्ये तीरे क्षीरपयोनिधेः।। 2।।
विद्याधरीभिर्मुख्याभिरङ्गनाभिश्च योगिनाम्।
सिद्धाङ्गनाभिः श्रेष्ठाभिस्तथैवाप्सरसां गणैः।। 3।।
देवाङ्गनाभी रम्याभिः क्रीडन्तीभिर्मनोहरैः।
गीतैर्नृत्यैर्विचित्रैश्च वाद्यैर्नानाविधैस्तथा।। 4।।

एवं सङ्क्रीडमानाया: प्राभवत्प्रसृतं रज:।
तद्रजोऽतीव सुश्रोणि! सुगन्धि सुमनोहरम्।। 5।।
रजसश्चातिबाहुल्याद्वासस्ते रक्ततां ययौ।
तत्र त्यक्त्वा तु तद्वस्त्रं सुस्नाता क्षीरसागरे।। 6।।
वृता देवाङ्गनाभिस्त्वं कैलासं पुनरागता।
ऊर्मिभिस्तद्रजोवस्त्रं नीतं मध्ये पयोनिधे:।। 7।।
एवं ते शोणितं भद्रे! प्रविष्टं क्षीरसागरे।
क्षीराब्धिमथने चैतदमृतेन सहोत्थितम्।। 8।।
निजगन्धेन तान् सर्वान् हर्षयन् दैत्यदानवान्।
ततो देवगणैरुक्तं गन्धकाख्यो भवत्वयम्।। 9।।
रसस्य बन्धनार्थाय जारणाय भवत्वलम्।
ये गुणा: पारदे प्रोक्तास्ते चैवात्र भवन्त्विति।। 10।।
इति देवगणै: प्रीतै: पुरा प्रोक्तं सुरेश्वरि।
तेनायं गन्धको नाम विख्यात: क्षितिमण्डले।। 11।।

Oh, Parvati! (as explained by Shiva) long ago at the delightful shores of Kshirasagara, which is full of various glittering jewels, which is instrumental for achieving all the desires and which is situated in the *shveta dvipa*, you (Parvati) become excited, playing to the tune of melodious music of various musical instruments and unusual dancing, along with prominent *vidyadharis*, *yoginis*, *siddhanganas*, *apsaras* and beautiful *devis*. During this time, you had menstruation period. Oh! Sushroni (having beautiful posterior), that menstrual fluid was extremely fragrant and delightful. Your clothes became red due to profuse menstrual fluid. You left those clothes on the shores and after taking bath in the Kshirasagara, you returned to Kailasa Parvata with other heavenly women.

The clothes you left were taken into the middle of the Kshirasagara by the waves of the sea. Thus, your menstrual fluid also was placed in the Kshirasagara. Later during *samudra manthana* (great churning of ocean), it surfaced along with the *amrita*. All the gods and demons became pleased with its fragrance. As this substance was having very enchanting smell, let it attain the name '*Gandhaka*', let it obtain all the qualities of mercury and let it be useful in the *jarana* process. Thus, was the utterance of the pleased gods. Hence Oh, Parvati! It was famed with the name *gandhaka* all over the universe.

Varieties of Gandhaka

स चापि त्रिविधो देवि! शुकचञ्चुनिभो वर:।
मध्यम: पीतवर्ण: स्याच्छुक्लवर्णोऽधम: स्मृत:।। 12।।
चतुर्धा गन्धको ज्ञेयो वर्णै: श्वेतादिभि: खलु।
श्वेतोऽत्र खटिका प्रोक्तो लेपने लोहमारणे।। 13।।
तथा चामलसार: स्याद्यो भवेत्पीतवर्णवान्।
शुकपिच्छ: स एव स्याच्छ्रेष्ठो रसरसायने।। 14।।
रक्तश्च शुकतुण्डाख्यो धातुवादविधौ वर:।
दुर्लभ: कृष्णवर्णश्च स जरामृत्युनाशन:।। 15।।

Hay Devi! This *gandhaka* is of three types. One is having the red colour like that of *shuka chunchuka* (beak of parrot) which is best, the second one is yellow in colour which is medium in its qualities and third is white in colour and is inferior.

Also, it is of four kinds, viz. *rakta* (red), *pita* (yellow), *shveta* (white) and *krishna* (black), according to colour. The *shveta* or white sulphur is called *khaika gandhaka*. This is used for external application as well as *marana* of metals. The second, yellow coloured sulphur is also called *shuka-pichcha*. It is said to be best among the *rasa-rasayanas*. Red coloured, third variety of sulphur, is called *shukatunda* and is more useful in *dhatuvada* (*lohasiddhi*). The last one *krishna*-black sulphur is unobtainable but can ward off senility and death.

Properties of Gandhaka

गन्धाश्मातिरसायन: सुमधुर: पाके कटूष्णो मत:,
कण्डूकुष्ठविसर्पदद्रुदलनो दीप्तानाल: पाचन:।
आमोन्मोचनशोषणो विषहर: सूतेन्द्रवीर्यप्रद:,
गौरीपुष्पभवस्तथा कृमिहर: सत्त्वात्मक: सूतजित्।। 16।।

Gandhaka is best rejuvenator, having *madhura rasa* (sweet in taste), *katu vipaka* and *ushna virya*. Apart from acting as good appetizer and digestive, it is capable of curing *kandu*, *kushta*, *visarpa* and *dadru*. It reduces and dries up the undigested food and also eradicates the disorders resulting out of poisoning. Sulphur increases the potency of mercury. It overcomes the disorders like *pliharoga*, *adhmana*, and *krimi*. It itself is in the form of *sattva* and capable of performing the *parada bandhana*.

बलिना सेवितः पूर्वं प्रभूतबलहेतवे।
वासुकिं कर्षतस्तस्य तन्मुखज्वालया द्रुता।। 17।।
वसा गन्धकगन्धाढ्या सर्वतो निःसृता तनाः।
गन्धकत्वं च सम्प्राप्ताः गन्धोऽभूत् सविषः स्मृतः।
तस्माद्बलिवसेत्युक्तो गन्धकोऽतिमनोहरः।। 18।।

Long back, a king called Bali had consumed this *gandhaka* in order to become very strong. During the *samudra manthana,* due to the flames coming out of the mouth of the serpent Vasuki, *vasa* (fat), with the smell of *gandhaka* was coming out of the body of Bali. Hence, it got the name *balivasa*. Due to the poisonous flames coming out of the serpent Vasuki, the *gandhaka* became poisonous.

The sulphur with the name *balivasa* is very delightful.

Shodhana I

पयः स्विन्नो घटीमात्रं वारिधौतो हि गन्धकः।
गव्याज्यविद्रुतो वस्त्राद् गलितः शुद्धिमृच्छति।। 19।।
एवं संशोधितः सोऽयं पाषाणानम्बरे त्यजेत्।
घृते विषं तुषाकारं स्वयं पिण्डत्वमेति च।। 20।।
इति शुद्धो हि गन्धाश्मा नापथ्यैर्विकृतिं व्रजेत्।
अपथ्यादन्यथा हन्यात्पीतं हालाहलं तथा।। 21।।

The *gandhaka* is melted along with a little quantity of cow's ghee and this liquefied sulphur is then poured (sieved) into another vessel, through a cloth, tied over the mouth of the vessel.

Then it is taken out and washed cleanly with water. By this process, the stoney substances remain on the cloth and *gandhaka* becomes purified. The poisonous substances in the *gandhaka* floats on milk like husk, mixed with ghee. And the sulphur remains inside the milk in the solid form.

The *gandhaka* purified thus, would not cause any harm, when consumed even in the event of *apathya* (wrong diet). On the contrary, if *gandhaka* is taken without purification (and not keeping the regimen of food etc.) it will destroy the body like *halahala visha*.

Shodhana II

गन्धको द्रावितो भृङ्गरसे क्षिप्तो विशुद्ध्यति।
तद्रसः सप्तधा स्विन्नो गन्धकः परिशुद्ध्यति।। 22।।

Gandhaka is melted and poured in *bhringaraja* juice, then it is washed in water. This makes the *gandhaka* pure. Or it is melted and poured in *bhringaraja* juice and boiled for some time in the same juice. Once again the sulphur is removed, melted, poured in the fresh *bhringaraja* juice and boiled. If this process is repeated for seven times, *gandhaka* becomes pure.

Shodhana III

स्थाल्यां दुग्धं विनिक्षिप्य मुखे वस्त्रं निबध्य च।
गन्धकं तत्र निक्षिप्य चूर्णितं सिकताकृतिम्।। 23।।
छादयेत्पृथुदीर्घेण खर्परेणैव गन्धकम्।
ज्वालयेत्खर्परस्योर्ध्वं वनच्छाणैस्तथोपलैः।। 24।।
दुग्धे निपतितो गन्धो गलितः परिशुद्ध्यति।
शतवारं कृतश्चैव निर्गन्धो जायते ध्रुवम्।। 25।।

A vessel with wide mouth, is filled with cow's milk, with a cloth tied on the mouth of the vessel. The powdered *gandhaka*, is then spread upon this cloth and is covered with a broad *sharava*. Cowdung cakes are then spread upon the *sharava* and ignited.

The sulphur, after melting by the heat of the fire, flows down in the milk kept in the vessel and purified. The process if repeated for one hundred times, *gandhaka* becomes odourless.

Administration of Gandhaka

इत्थं विशुद्धस्त्रिफलाज्यभृङ्गमध्वन्वितः शाणमितो हि लीढः।
गृध्राक्षि तुल्यं कुरुतेऽक्षियुग्मं करोति रोगोज्झितदीर्घमायुः।। 26 ।।

The *gandhaka* purified thus, if taken in the dosage of one *shana* (twenty four *ratti* or 3 gms.) along with *triphala* powder, *bhringaraja* juice, ghee and honey, the eyes (vision) becomes sharp like those of eagle. At the same time the man attains disease-free state as well as longevity.

Gandhaka Druti (Taila)

कलांशव्योषसंयुक्तं गन्धकं श्लक्ष्णचूर्णितम्।
अरत्निमात्रे वस्त्रे तद्विप्रकीर्य विवेष्ट्य तत्।। 27 ।।
सूत्रेण वेष्टयित्वाऽथ यामं तैले निमज्जयेत्।
धृत्वा सन्दंशतो वर्तिमध्यं प्रज्वालयेच्च तम्।
द्रुतो निपतितो गन्धो बिन्दुशः काचभाजने।। 28 ।।

Purified *gandhaka* and sixteen times *trikatu* are powdered separately and mixed well together. This powder is then spread on a cloth, measuring one *aratni* (1.25 × 1.25 feet) and a *varthi* (wick) is prepared out of it. This wick is kept soaked in sesame oil for one *prahara* (3 hours). Later, it is taken out and held in the middle, with the help of a pair of tongs and on end of it, and ignited. A glass vessel is kept below the ignited wick. The *gandhaka* melts and collects in the vessel, drop by drop.

Administration of Gandhaka Druti

तां द्रुतिं प्रक्षिपेत्पत्रे नागवल्ल्यास्त्रिबिन्दुकाम्।
वल्लेन प्रमितं स्वच्छं सूतेन्द्रं च विमर्दयेत्।। 29 ।।

अङ्गुल्याऽथ सपत्रां तां द्रुतिं सूतं च भक्षयेत्।
करोति दीपनं तीव्रं क्षयं पाण्डुं च नाशयेत्।। 30 ।।
कासं श्वासं च शूलार्तिं ग्रहणीमतिदुर्धराम्।
आमं विनाशयत्याशु लघुत्वं प्रकरोति च।। 31 ।।

Three drops of the above *druti* of *gandhaka* is taken in *nagavalli patra* (betel leaf) and added with one *valla* (1 to 1/2 *ratti* or125 to 200 mg.) of purified *parada* (or *bhasma* or *rasasindur*) and this mixture is rubbed well with the help of a finger. This is, then consumed with the leaf itself.

This therapy increases the digestive power and cures *kshaya*, *pandu*, *shvasa*, *shula* and incurable *grahani* diseases. It also digests the *ama* very swiftly and imparts *sharira laghuta*.

घृताक्ते लोहपात्रे तु विद्रुतं शुद्धगन्धकम्।
घृताक्तदर्विकाक्षिप्तं द्विनिष्कप्रमितं भजेत्।। 32 ।।
हन्ति क्षयमुखान् रोगान्कुष्ठरोगं विशेषतः।
गन्धकस्तुल्यमरिचः षड्गुणत्रिफलान्वितः।। 33 ।।
घृष्टः शम्पाकमूलेन पीतश्चाखिलकुष्ठहा।
तन्मूलं सलिले विष्टं लेपयेत्प्रत्यहं तनौ।। 34 ।।
दृष्टप्रत्यययोगोऽयं सर्वत्राप्रतिवीर्यवान्।
श्रीमता सोमदेवेन सम्यगत्र प्रकीर्तितः।। 35 ।।
क्षाराम्लतैलसौवीरविदाहिद्विदलं तथा।
शुद्धगन्धकसेवायां त्याज्यं योगयुतेन हि।। 36 ।।

Purified *gandhaka* is melted in an iron vessel smeared and rubbed with ghee-smeared iron ladle. This is taken in the dosage of two *nishka* (48 *ratti* or 6 gms.) daily to eradicate not only *kshayaroga* but especially the *kustha roga*.

Purified *gandhaka* is mixed with equal quantity of powder of *maricha* and *triphala* with the decoction of the root of *shampaka* (*aragvadha*). By this, all types of *kushta roga* are cured. During this therapy *gandhaka* rubbed in expressed juice of the root of the same plant and regularly smeared all over the body and sit in the bearable sun light.

The therapy is depicted by Somadeva, to conquer all *kustha-rogas* which can be evidently percievable.

Those who consume purified *gandhaka* (yoga formulations) should abstain completely from *kshara* (alkalies), *amla* (sour) subsances, oils, *souvira* (alcohalic brewages), *vidahi* substances (irritants) and *dvidala* (pulses) grains like *masha*, *chanaka*.

द्विनिष्कप्रमितं गन्धं पिष्ट्वा तैलेन संयुतम्।
अथापामार्गतोयेन सतैलमरिचेन हि।। 37।।
विलिप्यसकलं देहं तिष्ठेद् घर्मे ततः परम्।
तक्रभक्तं च भुञ्जीत तृतीये प्रहरे खलु।। 38।।
भजेद्रात्रौ तथा वह्निं समुत्थाय तथा प्रगे।
महिषीछगणं लिप्त्वा स्नायाच्छीतेन वारिणा।। 39।।
ततोऽभ्यज्य घृतैर्देहं स्नायादिष्टोष्णवारिणा।
अमुना क्रमयोगेन विनश्यत्यतिवेगतः।। 40।।
दुर्जया बहुकालीना पामा कण्डूः सुनिश्चितम्।
गन्धकस्य प्रयोगाणां शतं तत्र प्रकीर्त्तितम्।
ग्रन्थविस्तारभीतेन सोमदेवेन भूभुजा।। 41।।

Two *nishaka* (48 *ratti* or 6 gms.) of *gandhaka* and equal quantity of *maricha* are rubbed together with *tila* oil and juice or decoction of *panchanga* of *apamarga*. This paste is smeared all over the body and sit under the bearable sunshine. Then, at the third *prahara* (around 2 O'clock in the afternoon) if felt hungry, should eat rice with butter milk. At night rest a while after sitting in fornt of bearable fire. Next morning after getting up, buffalo dung (manure) is smeared all over the body and bathed in cold water. Then cow's ghee is applied all over the body and hot water bath is taken.

This therapy which is continued for few days, is capable of eradicating very chronic *pama* and *kandu* which are spread all over the body.

Such *gandhaka* therapies (formulations) are numerous; however with the fear of bulkening of the text, Shri Somadeva has not explained them all.

Gandhaka Taila

अथवाऽर्कस्नुहीक्षीरैर्वस्त्रं लेप्यं तु सप्तधा।
गन्धकं नवनीतेन पिष्ट्वा वस्त्रं लिपेद् घनम्।। 42।।
तद्वर्त्तिं ज्वलितां दंशे धृतां कुर्यादधोमुखीम्।
तैलं पतेदधोभाण्डे ग्राह्यं योगेषु योजयेत्।। 43।।

A thick cloth measuring one foot in length and width is taken and soaked and dried seven times in each of the latex of *arka* and *snuhi*. The purified *gandhaka*, which is made into *pisthi* (soft mass) by rubbing in butter is applied thickly on the above said cloth. With this, a *varthi* (wick) is prepared and after drying, held with a pair of tongs and one end is ignited. The ignited end is held downwards and burnt. The oil which is dropped drop by drop, is collected in a vessel kept below. This oil is used in various formulations.

Properties of Purified Gandhaka

शुद्धगन्धो हरेद्रोगान् कुष्ठमृत्युजरादिकान्।
अग्निकारी महानुष्णो वीर्यवृद्धिं करोति च।। 44।।

Diseases like *kushta* and senility as well as untimely death are repelled, by taking purified *gandhaka*. It increases digestive power and is extremely *ushna* (hot in nature). It also enhances the vitality in the body.

GAIRIKA
(Red Ochre)

Varieties of Gairika

पाषाणगैरिकं चैकं द्वितीयं स्वर्णगैरिकम्।
पाषाणगैरिकं प्रोक्तं कठिनं ताम्रवर्णकम्।
अत्यन्तशोणितं स्निग्धं मसृणं स्वर्णगैरिकम्।। 45।।

Gairika is of two types. One is *svarnagairika* and another is *pashanagairika*. The *pashanagairika* is hard like stone and has

copper colour, where as the former *svarnagairika* is very red in colour, *snigdha* (unctuous, and soft).

स्वादु स्निग्धं हिमं नेत्र्यं कषायं रक्तपित्तनुत्।
हिध्मावमिविषघ्नं च रक्तघ्नं स्वर्णगैरिकम्।
पाषाणगैरिकं चान्यत्पूर्वस्मादल्पकं गुणे ।। 46 ।।

Svarnagairika has *madhura* (sweet) and *kashaya* (astringent) tastes, *snigdha* (unctuous) and *shita* in nature. It is good for eyes and reduces *raktapitta, hikka, vamana* and *vishavikara* (disorders caused by poisoning), apart from being haemostatic. Though the *pashanagairika* has the similar qualities, they are in milder form.

Shodhana of Gairika

गौरिकं तु गवां दुग्धैर्भावितं शुद्धिमृच्छति ।। 47 ।।

If *gairika* is given the *bhavana* of cow's milk, it becomes pure.

Sattavapatana of Gairika

गैरिकं सत्त्वरूपं हि नन्दिना परिकीर्त्तितम्।
कैरप्युक्तं पतेत्सत्त्वं क्षाराम्लस्विन्नगैरिकात्।
उपतिष्ठति सूतेन्द्रमेकत्वं गुणवत्तरम् ।। 48 ।।

According to *nandi, gairika* itself is in the form of *sattva*. However, according to some other scholors, *sattva* can be obtained by *svedana* in *ksara* and *amla*. The *sattva* which is available can readily mix with *parada* and has better properties compared to *gairika* itself.

KASISA
(Ferrous Sulphate)

Varieties of Kasisa

कासीसं बालुकाद्येकं पुष्पपूर्वमथापरम् ।। 49 ।।

Kasisa is of two varieies viz., *baluka kasisa* and *pushpa kasisa*.

Properties of Kasisa

क्षाराम्लागुरुधूमाभं सोष्णवीर्यं विषापहम्।
बालुकापूर्वकासीसं श्वित्रघ्नं केशरञ्जनम् ।। 50 ।।
पुष्पादिकासीसमतिप्रशस्तं सोष्णं कषायाम्लमतीव नेत्र्यम्।
विषानिलश्लेष्मगदव्रणघ्नं श्वित्रक्षयघ्नं कचरञ्जनञ्च ।। 51 ।।

The *baluka kasisa* (which is crystalline like sand) has *kshara* (alkaline) and *amla* (sour) taste, heavy and is *ushna*. It is gray (smoky) in colour and eradicates *vishvikara, shveta kushta* (leucoderma) and helps in dyeing of the hairs.

Among the types of *kasisa* the former *pushpa kasisa* is best. It has *ushna virya* and *kashaya* (astringent), and *amla* (sour) tastes. It is beneficial for eyes and relieves *vishavikaras* and the diseases caused by *vata* and *kapha doshas*. Thus *pushpa kasisa* is *vrana ropaka* (which heals the wounds) and useful in *kshaya*. This too like *baluka kasisa* helps in making the hairs black.

Shodhana of Kasisa

सकृद्भृङ्गाम्बुना क्लिन्नं कासीसं निर्मलं भवेत्।
कासीसं शुद्धिमाप्नोति पित्तैश्च रजसा स्त्रियः ।। 52 ।।

For the purification of *kasisa*, it is given *bhavana* of *bhringaraja* juice or it may be kept immersed in the same juice. It can also be purified by keeping or grinding the powdered *kasisa* in the *pitta* (bile) of animals, or menstrual fluid of women.

Sattvapatana of Kasisa

तुवरीसत्त्ववत् सत्त्वमेतस्यापि समाहरेत् ।। 53 ।।

Sattva is obtained from the *kasisa*, if it is subjected to *sattvapatana* like that of *tuvari* (*sphatika*-alum).

Administration of Kasisa

बलिना हतकासीसं कान्तं कासीसमारितम्।
उभयं समभागं हि त्रिफलवेल्लसंयुतम् ।। 54 ।।

विषमांशघृतक्षौद्रप्लुतं शाणमितं प्रगे।
सेवितं हन्ति वेगेन श्वित्रं पाण्डुक्षयामयम्।। 55।।
गुल्मप्लीहगदं शूलं मूलरोगं विशेषत:।
रसायनविधानेन सेवितं वत्सरावधि।। 56।।
आमसंशोषणं श्रेष्ठं मन्दाग्निपरिदीपनम्।
पलितं वलिभि: सार्धं विनाशयति निश्चितम्।। 57।।

Equal quantities of *kasisa bhasma* prepared with the help of *gandhaka* and *kantaloha bhasma* (some advise to take *vaikranta bhasma*) and *kasisa* are taken and ground well together. One *ratti* (125 mg.) of this mixture is added with six *rattis* (750 mg.) each of the powders of *triphala* and *vidanga* and consumed along with dissimilar quantity of ghee and honey, in the early morning. This would cure the diseases like *shvetakushta, pandu, kshaya, gulma, pliharoga, shula,* and *arsha* etc. If this formulation is taken for one year, according to *rasayana* therapy, the digestive power will increase, by reducing the *ama dosha.* Also, symptoms like *vali* (wrinkles) as well as *palita* (graying of hairs) will also be relieved, without any doubt.

TUVARI (KANKSHI) (Alum)

सौराष्ट्राश्मनि सम्भूता मृत्स्ना सा तुवरी मता।
वस्त्रेषु लिप्यते यासौ मञ्जिष्ठारागबन्धिनी।। 58।।

A kind of mud which is produced in the rocky area used for the application of the clothes in order to thickening (setting) of colours like *manjistha* etc.

Varieties and Properties of Tuvari

फटकी फुल्लिका चेति द्वितीया परिकीर्त्तिता।
ईषत्पीता गुरु: स्निग्धा पीतिका विषनाशिनी।। 59।।
व्रणकुष्ठहरा सर्वकुष्ठघ्नी च विशेषत:।
निर्भारा शुभ्रवर्णा च स्निग्धा साम्लाऽपरा मता।
सा फुल्लतुवरी प्रोक्ता लेपात्ताम्रं चरेदियम्।। 60।।

Tuvari is of two types. One *phataki* and another is *phullika.*

The *phataki,* otherwise known as *pitika* is slightly yellow in colour, *guru* and *snigdha.* It is *vishanashaka* and used in *kushtha,* especially in all types of *kushtha.*

The *phullika* or *phulla tuvari* is slightly light white in colour, *snigdha, mudhura* and slightly *amla* in taste. The *tamra* will turn into *bhasma,* if applied over with the *tuvari.*

Common Properties of Both

काङ्क्षी कषाया कटुकाम्लकण्ठ्या केश्या व्रणघ्नी विषनाशिनी च।
श्वित्रापहा नेत्रहिता त्रिदोषशान्तिप्रदा पारदजारणी च।। 61।।

The *kankshi* or *sphatika* has *kashaya, katu* and *amla* tastes and beneficial to throat and hairs. It helps in healing the wounds and acts against poisoning. It eradicates *shvitra* and alleviates all the three *doshas. Sphatika* is very useful in *jarana* process of *parada.*

Shodhana of Tuvari

तुवरी काञ्जिके क्षिप्ता त्रिदिनाच्छुद्धिमृच्छति।। 62।।

The *tuvari* is purified by keeping it soaked in *kanji* for three days.

Sattvapatana of Tuvari

क्षाराम्लैर्मर्दिता ध्माता सत्त्वं मुञ्चति निश्चितम्।
गोपित्तेन शतं वारान् सौराष्ट्रीं भावयेत्तत:।
धमित्वा पातयेत्सत्त्वं क्रामणं चातिगुह्यकम्।। 63।।

If *sphatika* is ground in *kshara* (alkalies) like *yavakshara,* sour substances like *kanji* etc., a ball is prepared, kept in crucible and heated intensively in the fire, *sattva* can be obtained definitely.

To get the *sattva* of *tuvari,* it is ground in *gopitta* (bile of cow) and subjected to fire after keeping it in crucible. This *sattva* is useful in the *kramana samskara* of the *parada.* This *sattvapatana* process is deserved to be kept very secret.

TALAKA (HARATALA)
(Orpiment)

Varieties of Haratala

हरतालं द्विधा प्रोक्तं पत्राद्यं पिण्डसंज्ञकम्।
स्वर्णवर्णं गुरु स्निग्धं तनुपत्रञ्च भासुरम्।। 64।।
तत्पत्रतालकं प्रोक्तं बहुपत्रं रसायनम्।
निष्पत्रं पिण्डसदृशं स्वल्पसत्त्वं तथा गुरु।
स्त्रीपुष्पहरणं तत्तु गुणाल्पं पिण्डतालकम्।। 65।।

Haratala (orpiment is of two types, viz. *patra haratala* and *pinda haratala.*

Patra haratala is golden in colour, heavy and *snigdha.* It contains small layers and is bright. The *haratala* which has more number of layers, is consumed as *rasayana.*

The *pinda haratala*, which is massive and without layers has less potency. It is heavy and has lesser qualities than that of *patra haratala.* This causes *arthava nasha* (stoppage of menstrual fluid) in women.

Properties of Haratala

श्लेष्मरक्तविषवातभूतनुत् केवलश्च खलु पुष्पहृत्स्त्रियाः।
स्निग्धमुष्णं कटुकञ्च दीपनं कुष्ठहारि हरतालमुच्यते।। 66।।

The *haratala* eradicates the aggravation of *kapha*, disorders of *rakta*, disorders due to poisoning, aggravation of *vata dosha* and disturbances caused by evil spirits. If *haratala* is consumed without purification, it can destory the *stripushpa.* It is *snigdha*, *ushna* and has *katurasa* and being good appetizer, it cures *kushtharoga.*

Ashuddha Sevana Dosha

अशुद्धं तालमायुर्घ्नं कफमारुतमेहकृत्।
तापस्फोटाङ्गसङ्कोचं कुरुते तेन शोधयेत्।। 67।।

Haratala, consumed without proper purification shortens the life span, causes diseases of *kapha* and *vata*, as well as *prameha.* It is responsible for *santapa* (burning sensation) in the body, *sphota* (boils) and *snayu sankocha* (contraction of blood vessels and muscles). Hence, it should invariably be subjected to purification.

Shodhana of Haratala

स्विन्नं कूष्माण्डतोये वा तिलक्षारजलेऽपि वा।
तोये वा चूर्णसंयुक्ते दोलायन्त्रेण शुद्ध्यति।। 68।।
तालकं कणशः कृत्वा दशांशेन च टङ्कणम्।
जम्बीरोत्थद्रवैः क्षाल्यं काञ्जिकैः क्षालयेत्तथा।। 69।।
वस्त्रे चतुर्गुणे बद्ध्वा दोलायन्त्रे दिनं पचेत्।
सचूर्णनारनालेन दिनं कुष्माण्डजे रसे।
स्वेद्य वा शाल्मलीतोयैस्तालकं शुद्धिमाप्नुयात्।। 70।।

Haratala is subjected to boiling in *dolayantra* in one of the liquids, i.e. in the juice of *kushmanda* or solution of *tilakshara* or *churnodaka* (lime water), to purify it.

Haratala is made into small pieces, added with one tenth of *tankana* and washed with lemon juice and *kanji.* Then, it is tied into a four fold cloth to prepare a *potali* and boiled in the mixture of lime water and *kanji* throughout the day, in *dolayantra.* This makes the *haratala shuddha.*

It can also be purified by boiling in juice of *kushmanda* or *shalmali* for a whole day, with the help of *dolayantra.* The *potali* is prepared as said above.

Marana of Haratala

मधुतुल्ये घनीभूते कषाये ब्रह्ममूलजे।
त्रिवारं तालकं भाव्यं पिष्ट्वा मूत्रेऽथ माहिषे।। 71।।
उपलैर्दशभिर्देयं पुटं रुद्ध्वाऽथ पेषयेत्।
एवं द्वादशधा पाच्यं शुद्धं योगेषु योजयेत्।। 72।।

The decoction of root of *palasha* is prepared thick like honey

(by boiling) and three *bhavanas* are given to *haratala* with it. Then, it is rubbed in buffalo's urine, *charkrikas* are prepared and by keeping in *sharava samputa, putas* (kiln) of ten cowdung cakes are given. Such twelve *putas* are necessary to obtain pure *haratala bhasma*. It can be used in various yogas (formulations).

Sattvapatana I

कुलित्थक्काथसौभाग्यमहिष्याज्यमधुप्लुतम्।
स्थाल्यां क्षिप्त्वा विदध्याच्च मल्लेन च्छिद्रयोगिना।। 73।।
सम्यक् निरुध्य शिखिनं ज्वालयेत्क्रमवर्धितम्।
एकप्रहरमात्रं हि रन्ध्रमाच्छाद्य गोमयैः।। 74।।
यामान्ते छिद्रमुद्घट्य दृष्टे धूमे च पाण्डुरे।
शीतां स्थालीं समुत्तार्य सत्त्वमुत्कृष्य चाहरेत्।। 75।।
सर्वपाषाणसत्त्वानां प्रकाराः सन्ति कोटिशः।
ग्रन्थविस्तारभीत्याऽत्र लिखिता न मया खलु।। 76।।

Haratala is given the *bhavana* of decoction of *kulattha*, solution of *tankana*, buffalo's ghee and honey. Then a ball is prepared, dried and kept in a strong vessel. It is covered on the mouth with a *sharava* having holes and sealed well. These holes are closed with the help of cowdung. This vessel is then kept on the fire and heat is given in the order of mild, moderate and intensive. When white coloured smoke is coming out of the holes, then the fire is extinguished. When the vessel becomes self cold, the *sattva* which is available in it, is collected. There are crores of methods which explain the *sattvapatana* of all types of minerals. However, they can not be described here, in the fear of bulkening of text.

Sattvapatana II

पलालकं खेर्दुग्धैर्दिनमेकं विमर्दयेत्।
क्षिप्त्वा षोडशिकातैले मिश्रयित्वा ततः पचेत्।। 77।।
अनावृतप्रदेशे च सप्तयामावधि ध्रुवम्।
स्वाङ्गशीतमधःस्थञ्च सत्त्वं श्वेतं समाहरेत्।। 78।।

One *pala* (four *tola* or 46 gms. approximately) of *haratala* is ground for a whole day in the latex of *arka*. Trituration is continued by adding one *tola* (about 11.5 gms.) of *tila taila*. Then (after confining it into a glass bottle) it is subjected to fire for seven *prahara* (21 hours) in the open air. After self cooling, the *sattva* which is white in colour, is collected from the bottom of the bottle.

Sattvapatana III

छागलस्याथवाऽलाभे बलिना च समन्वितम्।
तालकं दिवसद्वन्द्वं मर्दयित्वाऽतियत्नतः।। 79।।
युक्तं द्रावणवर्गेण काचकूप्यां विनिःक्षिपेत्।
त्रिधा ताञ्च मृदा लिप्त्वा परिशोष्य खरातपे।। 80।।
ततः खर्परकच्छिद्रे तामर्धां चैव कूपिकाम्।
प्रवेश्य ज्वालयेदग्निं द्वादशप्रहरावधि।
कूपिकण्ठस्थितं शीत शुद्धं सत्त्वं समाहरेत्।। 81।।

Equal quantity of goat's meat (some advise the hair of goats, *taila, gandhaka*), and *haratala* are together rubbed well for two days. Again this mixture is ground in the drugs of *dravaka varga*; dried, kept in a glass bottle which is covered with three layers of muddy cloth, dried well again in sun rays. Then an earthen vessel is taken and the prepared glass bottle is placed inside this vessel so that, the above half of the bottle is visible out of the vessel. Then sand is filled in the vessel up to the neck of the bottle. The vessel, then kept in fire and given mild, moderate and intersiven heat (fire) for twelve *prahara* (36 hours). After self cooling, the *sattva* which is white in colour, is collected from the neck part of the bottle.

Sattvapatana IV

पलार्धप्रमितं तालं बद्ध्वा वस्त्रे सिते दृढे।
बलिनाऽऽलिप्य यत्नेन त्रिवारं परिशोष्य च।। 82।।
द्राविते त्रिपले ताम्रे क्षिपेत्तालकपोटलीम्।

भस्मनाच्छादयेच्छीघ्रं ताम्रेणाऽऽवेष्टितं सितम्।
मृदुलं सत्त्वमादद्यात्प्रोक्तं रसरसायने।। 83।।

Half *pala* (two *tolas* or 23 gms.) purified *haratala* is tied into a strong cloth, to prepare a *potali* (small bundle). Then *gandhaka*, which is ground in lemon juice or cow's urine, is applied well, over the *potali*, and dried. Twelve *tola* (144 gms.) of copper is melted and the above *potali* is immersed in this liquefied copper and immediately covered with *bhasma* (ash). After self cooling, white soft *sattva* of *haratala* is collected from the midst of the copper. This *sattva* is used, both for *rasasiddhi* and *rasayana* therapy.

MANAHSHILA
(Realgar)

Varieties of Manahshila

मन:शिला त्रिधा प्रोक्ता श्यामाङ्गी कणवीरका।
खण्डाख्या चेति तद्रूपं विविच्य परिकथ्यते।। 84।।

There are three types of *manahshila*, viz. *shyamangi*, *kanaviraka* and *khanda*. The features etc. are explained below.

श्यामा रक्ता सगौरा च भाराढ्या श्यामिका मता।
तेजस्विनी च निर्गौरा ताम्राभा कणवीरका।। 85।।
चूर्णीभूताऽतिरक्ताङ्गी सभारा खण्डपूर्विका।
उत्तरोत्तरत: श्रेष्ठा भूरिसत्त्वा प्रकीर्त्तिता:।। 86।।

The *shyamangi* variety is *shyma* (light black), *rakta* (red) and *goura* (yellowish white) in colour and heavy in weight. The one, which is red like copper, devoid of *goura* (yellowish white) colour and bright, is *kanaviraka* type of *manahshila*. The last one, *khandakhya manahshila* is brittle in nature, deep red in colour and heavy.

Among these three, *shyamangi* is better than *kanaviraka* and the *khanda* is better than *shyamangi*. Based to their superiority alone, they yield more and more *sattva*.

Properties of Manahshila

मन:शिला सर्वरसायनाग्र्या तिक्ता कटूष्णा कफवातहन्त्री।
सत्त्वात्मिका भूतविषाग्निमान्द्यकण्डूतिकासक्षयहारिणी।। 87।।

Manahshila is considered as best among the *rasayanas*. It has *tikta* and *katu* tastes and *ushna virya* and alleviates *kapha* and *vata*. *Manahshila* yields more *sattva* and eradicates *bhuta badha* (effects of evil spirits), *visha vikara* (effects of poisoning), *agnimandya*, *kandu*, *kasa* and *kshaya*.

Properties of Shuddha and Ashuddha Manahshila

अश्मरीं मूत्रकृच्छ्रञ्च अशुद्धा कुरुते शिला।
मन्दाग्निं मलबन्धं च शुद्धा सर्वरुजापहा।। 88।।

The *manahshila* which is not purified, causes *ashmari*, *mutrakrichra*, *agnimandya* and *vibandha*. But the one which is *shuddha*, overcomes all kinds of diseases.

Shodhana of Manahshila

अगस्त्यपत्रतोयेन भाविता सप्तवारकम्।
शृङ्गवेररसैर्वाऽपि विशुद्ध्यति मन:शिला।। 89।।
जयन्तीभृङ्गराजोत्थरक्तागस्त्यरसै: शिलाम्।
दोलायन्त्रे पचेद्यामं यामं छागोत्थमूत्रकै:।
क्षालयेदारनालेन सर्वरोगेषु योजयेत्।। 90।।

Manahshila is purified by giving *bhavana* of either juice of *agastya* leaves or *ardraka*.

Manahshila is first boiled in the juice of *jayanti*, *bhringaraja* and red *agastya* leaves (either in individual juice separately or in the mixture of them) for one *prahara* (3 hours) and then in the urine of goat for one *prahara* (3 hours) in *dolayantra*. It is then washed well with *kanji*. The *manahshila*, thus purified is capable of curing all the diseases.

Sattvapatana of Manahshila

अष्टमांशेन किट्टेन गुडगुग्गुलुसर्पिषा।
कोष्ठ्यां रुद्ध्वा दृढं ध्माता सत्त्वं मुञ्चेन्मनःशिला:।। 91।।
भूनागसत्त्वसौभाग्यमदनैश्च विमर्दितैः।
कारवल्लीदलाम्भोभिर्मूषां कृत्वाऽत्र निक्षिपेत्।। 92।।
शिलां क्षाराम्लनिष्पिष्टां प्रधमेत्तदनन्तरम्।
घटिकाद्वयमात्रं हि ध्मानात् सत्त्वं सृजत्यसौ।। 93।।

One part of *manahshila* and one eight each of *mandura,* jaggery, *guggulu* and ghee are together ground well. The mass is then kept in *musha,* which is placed inside the *koshthi* and blowed in the fire intensively to obtain the *sattva* of *manahshila.*

Equal quantities of *manahshila, bhunaga sattva* (*sattva* extracted from earthworms) and *tankana* are together ground in *karavellaka* juice to prepare a *musha* out of the resultant mass. The *manahshila* which is rubbed in *kshara* and *amla* drugs, is kept in this *musha* and subjected to intensive fire for two hours. This will yield the *sattva* of *manahshila.*

ANJANA
(Collyrium)

Varieties of Anjana

सौवीरमञ्जनं प्रोक्तं रसाञ्जनमतः परम्।
स्रोतोञ्जनं तदन्यच्च पुष्पाञ्जनमेव च।। 94।।
नीलाञ्जनं च तेषां हि स्वरूपमिह वर्ण्यते।
सौवीरमञ्जनं धूम्रं पीताभं च रसाञ्जनम्।। 95।।
वल्मीकशिखराकारं भङ्गे नीलोत्पलद्युति।
घृष्टं तु गैरिकच्छायं स्रोतोजं लक्षयेद्ध्रुवम्।
पुष्पाञ्जनं सितं चैव विद्यान्नीलाञ्जनं गुरु।। 96।।

There are five types of *anjanas,* viz. *sauviranjana, rasanjana, srotonjana, pushpanjana* and *nilanjana.* Following is the description of their features :

The *sauviranjana* (stybnite) is gray (smoky) in colour, *rasanjana* (yellow oxide of mercury or extract of *daruharidra*) has yellow colour, where as *srotonjana* (antimony sulphide) looks like ant-hill and has blue colour like *nilakamala* (blue lotus). If this is rubbed on the stone, it leaves a red mark like *gairika* (red ochre). *Pushpanjana* is white in colour, where as *nilanjana* is very heavy.

Features and Properties of Anjanas

सौवीरमञ्जनं धूम्रं रक्तपित्तहरं हितम्।
विषहिध्मादिरोगघ्नं व्रणशोधनरोपणम्।। 97।।

Sauviranjana as said above, has smoky in colour and is *shita* in *virya.* It eradicates the diseases like *raktapitta, vishavikara, hikka* apart from having wound healing properties.

रसाञ्जनञ्च पीताभं विषवक्त्रगदापहम्।
श्वासहिध्मापहं वर्ण्यं वातपित्तास्रनाशनम्।। 98।।

Rasanjana is yellow in colour, relieves the effects of poison, eradicates *mukharoga, shvasa* and *hikka.* It enhances the body complexion and relieves *vatarakta* and *raktapitta.*

स्रोतोऽञ्जनं हिमं स्निग्धं कषायं स्वादु लेखनम्।
नेत्र्यं हिध्माविषच्छर्दिकफपित्तास्ररोगनुत्।। 99।।

Srotonjana is *shita* and *snigdha* with *kashaya* and *madhura* taste. It is good for eyes and cures the disorders of *hikka, vishavikara, vamana* (vomiting) and also diseases caused by *kapha, pitta* and *rakta.*

पुष्पाञ्जनं सितं स्निग्धं हिमं सर्वाक्षिरोगनुत्।
अतिदुर्धरहिध्माघ्नं विषज्वरगदापहम्।। 100।।

The white coloured *pushpanjana* is *snigdha, shita* and can cure all the eye diseases. It relieves difficult *hikka.* It is also useful in *vishavikara* and fevers.

नीलाञ्जनं गुरु स्निग्धं नेत्र्यं दोषत्रयापहम्।
रसायनं सुवर्णघ्नं लोहमार्दवकारकम्।। 101।।

Nilanjana is very heavy and *snigdha*. It is beneficial to eyes, alleviates all the three *doshas* and has qualities of *rasayana*. *Nilanjana* is capable of doing *marana* of *svarna*, apart from softening the metals.

Shodhana of Anjana

अञ्जनानि विशुद्ध्यन्ति भृङ्गराजनिजद्रवैः।
सूर्यावर्त्तादियोगेन शुद्धिमेति रसाञ्जनम्।। 102 ।।

All types of *anjanas* are purified by giving *bhavana* of juice of *bhringaraja*. *Rasanjana* can be purified with the help of a *suryavartadi* yoga (the decoction prepared out of *suryavartaka*, *kadali vandhya*, *koshatakai*, *suradali*, *shigru*, *vajrakanda*, *nirakana* and *kakamachi*).

Sattvapatana of Anjana

मनोह्वासत्त्ववत्सत्त्वमञ्जनानां समाहरेत्।
राजावर्तकवत्सत्त्वं ग्राह्यं स्रोतोऽञ्जनादपि।। 103 ।।

The *sattvapatana* of *anjanas* is performed like that of *manahshila*. Similarly, the method of *sattvapatana* of *rajavarta* (lapis lazuli) is followed, even in case of *sattvapatana* of *srotonjana*.

Rasabandhana by Srotonjana

गोशकृद्रसमूत्रेषु घृतक्षौद्रवसासु च।
भावितं बहुशस्तञ्च शीघ्रं बध्नाति सूतकम्।। 104 ।।

It *srotonjana* is given, seven *bhavanas* each of liquid, i.e. cowdung juice, cow's urine, ghee, honey and *vasa* (fat), it gains the power of *rasa bandhana* very quickly.

KANKUSHTHA
(Ruhbarb)

Varieties of Kankushtha

हिमवत्पादशिखरे कङ्कुष्ठमुपजायते।
तत्रैकं नालिकाख्यं हि तदन्यद्रेणुकं मतम्।। 105 ।।

पीतप्रभं गुरु स्निग्धं श्रेष्ठं कङ्कुष्ठमादिमम्।
श्यामपीतं लघु त्यक्तसत्त्वं नेष्टं हि रेणुकम्।। 106 ।।

Kankushtha is produced in the smaller hill tops of the Himalaya mountain. It is of two types viz. *nalika kankustha* and *renuka kankushtha*.

Nalika kankushtha is yellow in colour, heavy and *snigdha* and better of the two. The latter, *renuka kankushtha* is slightly blackish yellow, light in weight, devoid of the *sattva* and hence, not useful.

केचिद्वदन्ति कुङ्कुष्ठं सद्योजातस्य दन्तिनः।
वर्चश्च श्यामपीताभं रेचनं परिकथ्यते।। 107 ।।
कतिचित्तेजिवाहानां नालं कङ्कुष्ठसंज्ञकम्।
वदन्ति श्वेतपीताभं तदतीव विरेचनम्।
रसे रसायने श्रेष्ठं निःसत्त्वं बहु वैकृतम्।। 108 ।।

According to some opinions, *kankushta* is excreta of just born elephant and has blackish yellowish colour and is purgative. Some others say that, it is umblical cord of the just born horse. They opine that, it is whitish yellow in colour, strong purgative and said to be best in *rasa* and *rasayana* therapies. However, the *kankustha* without potency can cause many disorders.

Properties of Kankushtha

कङ्कुष्ठं तिक्तकटुकं वीर्योष्णं चातिरेचनम्।
व्रणोदावर्त्तशूलार्त्तिगुल्मप्लीहगुदार्त्तिनुत्।। 109 ।।

Kankushtha has *tikta* and *katu* tastes and is *ushna* in *virya*. It is drastic purgative and is useful in *vrana*, *udavartta*, *pliharoga* and *arsha*.

Shodhana of Kankushtha

कङ्कुष्ठं शुद्धिमायाति त्रिधा शुण्ठ्यम्बुभावितम्।
सत्त्वाकर्षोऽस्य न प्रोक्तो यस्मात्सत्त्वमयं हि तत्।। 110 ।।

Kankushtha is purified by giving *bhavana* with decoction of *shunthi.* As *kankushtha* itself is, in the form of *sattva*, there is no necessity of extracting *sattva* from it.

Administration of Kankushtha

भजेदेनं विरेकार्थं ग्राहिभिर्यवमात्रया।
नाशयेदामजार्त्तिं च विरेच्य क्षणमात्रतः।। 111।।
भक्षितः सह ताम्बूलैर्विरिच्यासून्विनाशयेत्।
बर्बूरीमूलिकाक्काथो जीरसौभाग्यकं समम्।
कङ्कुष्ठविषनाशाय भूयो भूयः पिबेन्नरः।। 112।।

Kankushtha is given in the dosage of one *yava* (1/4 *ratti* or about 30 mg.) along with the *grahi* drugs (like *shunthi, jiraka* etc.) for causing *virechana.*

If *kankushtha* is consumed along with *tambula* (betel leaf) due to drastic purgation, the patient may suffer extremely, and even die.

When poisoning effects of *kankushtha* are seen (like drastic purgation), the root decoction of *babbula* is consumed frequently, along with *jiraka* and *tankana.*

Shodhana and Sattvapatana of Rasa/Uparasas

सूर्यावर्त्तककदली बन्ध्या कोशातकी च सुरदाली।
शिग्रुश्च वज्रकन्दो नीरकणाकाकमाची च।। 113।।
आसामेकरसेन तु लवणक्षाराम्लभाविता बहुशः।
शुद्ध्यन्ति रसोपरसा ध्माता मुञ्चन्ति सत्त्वानि।। 114।।

The expressed juice or decoction of any of the herbs among *suryavartaka, kadali, vandhya, shigru, vajrakanda, jalapippali, kakamachi* is mixed with *lavana* (*saindhava lavana*), *kshara* (*yavakshara*) and *amla* (*kanji* or lemon juice) and *rasa* and *uparasas* are triturated many times to purify them.

If these purified *rasa* and *uparasas* are kept in crucible and

blowed in the fire, according to the prescribed method of *sattvapatana*, the *sattva* of these *rasa, uparasa* is available.

SADHARANA RASA

कम्पिल्लश्चापरो गौरीपाषाणो नवसादरः।
कपर्दो वह्निजारश्च गिरिसिन्दूरहिङ्गुलौ।। 115।।
मृद्दारशृङ्गमित्यष्टौ साधारणरसाः स्मृताः।
रससिद्धिकराः प्रोक्ता नागार्जुनपुरस्सरैः।। 116।।

Kampilla, gouripashana (arsenic), *navasadara, kaparda* (cowri), *agnijara* (whale derivative), *girisindura, hingula* (cinnabar) *mriddara-shringa* (litharge) are the eight *sadharana rasas.* They are said to be helpful in the practice of *rasasiddhi*, according to the *siddhas* like Nagarjuna etc.

KAMPILLA
(Mallotus philippinensis)

इष्टिकाचूर्णसङ्काशश्चन्द्रिकाढ्योऽतिरेचनः।
सौराष्ट्रदेशे चोत्पन्नः स हि कम्पिल्लकः स्मृतः।। 117।।

The *kampilla* is that substance which is red in colour like brick powder, which contains lustrous particles and which is purgative. It is said to be produced in Saurashtra desha.

Properties of Kampilla

पित्तव्रणाध्मानविबन्धहारी श्लेष्मोदरार्त्तिकृमिगुल्महारी।
मूलामशोफज्वरशूलहारी कम्पिल्लको रेच्यगदापहारी।। 118।।

The *kampilla* can relieve the vitiated *pitta, adhmana, vrana, vibandha* and also heal the wounds. It also corrects the vitiated *kapha* and eradicates the diseases like *udararoga, krimi, pliharoga, arsha, jvara, shula* etc. Incidently it can overcome all the diseases which can be cured by *virechana* (purgation).

GAURIPASHANA
(Arsenic Oxide)

Varieties of Gauripashana

गौरीपाषाणकः पीतो विकटो हतचूर्णकः।
स्फटिकाभश्च शङ्खाभो हरिद्राभस्त्रयः स्मृताः।। 119 ।।
पूर्वः पूर्वो गुणैः श्रेष्ठः–

Pita, *vikata* and *hatachurnaka* are the synonyms of *gauripashana*. It is of three types, viz. *sphatikabha*, *shankabha* and *haridrabha* (having the colours like white, yellowish white and yellow). Among them *sphatikabha* is better than *shankhabha* and *shankhabha* is better than *haridrabha*.

Shodhana of Gauripashana

–कारवल्लीफले क्षिपेत्।
स्वेदयेद्धण्डिकामध्ये शुद्धो भवति मूषकः।। 120 ।।

Gauripashana is kept inside a large fruit of *karavellaka,* tied well and subjected to *svedana* in the juice of *karavellaka*, in *dolayantra* for one *prahara* (three hours). This process purifies the *gauripashana*.

Sattvapatana of Gauripashana

तालवद् ग्राहयेत् सत्त्वं शुद्धं शुभ्रं प्रयोजयेत्।। 121 ।।

Sattvapatana of *somala* is carried out in the same way as *sattvapatana* of *haratala* is performed.

Properties of Gauripashana

रसबन्धकरः स्निग्धो दोषघ्नो रसवीर्यकृत्।। 122 ।।

Gauripashana is capable of doing *rasabandhana*. It is *snigdha* and alleviates all the three *doshas*. Apart from this, it enhances the power of *parada*.

NAVASADARA
(Ammonium Chloride)

करीरपीलुकाष्ठेषु पच्यमानेषु चोद्भवः।
क्षारोऽसौ नवसारः स्याच्चुल्लिकालवणाभिधः।। 123 ।।
इष्टिकादहने जातं पाण्डुरं लवणं लघु।
तदुक्तं नवसाराख्यं चुल्लिकालवणञ्च तत्।। 124 ।।

A kind of *kshara* (alkali) which is produced by burning the wood of *karira* and *pilu*, is known as *navasadara*, otherwise called *chullika lavana*.

While burning bricks in the brick furnace, a *pandura* (yellowish white) coloured *lavana* is evolved, which is called *navasadara* or *chullika lavana*.

Properties of Navasadara

रसेन्द्रजारणं लोहद्रावणं जठराग्निकृत्।
गुल्मप्लीहास्यशोषघ्नं भुक्तमांसादिजारणम्।
विडाख्यञ्च त्रिदोषघ्नं चुल्लिकालवणं मतम्।। 125 ।।

Navasadara is useful in the process of *jarana* of mercury and in liquefying the metals. Apart from increasing the digestive fire, it relieves *gulma*, *pliharoga* and *mukha shosha*. *Navasadara* can digest quickly the heavy substances like meat etc. It is also called *bida lavana* and is capable of alleviating all the three *doshas*.

VARATIKA (KAPARDIKA)
(Cowri)

पीताभा ग्रन्थिका पृष्ठे दीर्घवृत्ता वराटिका।
रसवैद्यैर्विनिर्दिष्या सा चराचरसंज्ञिका।। 126 ।।
सार्धनिष्कभरा श्रेष्ठा निष्कभारा च मध्यमा।
पादोननिष्कभारा च कनिष्ठा परिकीर्त्तिता।
तदन्ये तु वराटाः स्युर्गुरवः श्लेष्मपित्तलाः।। 127 ।।

The *kapardika* which has yellow tinge, has nodules on the

back and which is oval in shape, is praised as "*Charachara*" by *Rasavaidayas.*

The *kapardika* weighing one and half *nishka* (36 *ratti*) is said to be best. The one which weighs one *nishka* (24 *ratti*) is medium in the qualities, where as the *kapardika* weighing one fourth *nishka* (6 *ratti*) is supposed to be inferior.

The *kapardika* which does not possess the above said qualities is called *varatika* and they are *guru* and aggravates *kapha* and *pitta* in the body.

Properties of Kapardika

परिणामादिशूलघ्नी ग्रहणीक्षयनाशिनी।
कटूष्णा दीपनी वृष्या नेत्र्या वातकफापहा।
रसेन्द्रजारणे प्रोक्ता बिडद्रव्येषु शस्यते।। 128।।

Kapardika can cure *shula* such as *parinamashula* etc., *grahani* and *kshaya.* It has *katu rasa, ushna virya* and enhances the digestive power and is aphordisiac and beneficial to eyes. *Kapardika* is very useful in the process of *parada jarana* as well as in the preparation of substances for "*bida*".

Shodhana of Kapardika

वाराटा: काञ्जिके स्विन्ना यामाच्छुद्धिमवाप्नुयु:।। 129।।

Kapardika are tied into a *potali* and boiled in *kanji* in *dolayantra* for one *prahara* (3 hours), to purify them.

AGNIJARA
(Ambergris)

समुद्रेणाग्निनक्रस्य जरायुर्बहिरुज्झित:।
संशुष्को भानुतापेन सोऽग्निजार इति स्मृत:।
यदब्धिक्षारसंशुद्धस्तस्माच्छुद्धिर्न हीष्यते।। 130।।

The *jarayu* (uterus) of an aquatic animal called *agninakra*, which lives in oceans, pushed out of the sea due to waves. This, when dried up in the sun is called *agnijara.*

Due to the *kshara guna* (alkaline qualities) of sea water, there is no necessity of subjecting this *agnijara* againto *shodhana.*

Properties of Agnijara

अग्निजारस्त्रिदोषघ्नो धुनर्वातादिवातनुत्।
वर्धनो रसवीर्यस्य दीपनो जारणस्तथा।। 131।।

Agnijara alleviates all the three *doshas* and relieves the diseases like *dhanurvata* and *vatarogas.* Apart from enhancing the potency of *parada*, it is useful in *dipana* and *jarana* processes of *parada* also.

GIRISINDURA
(Red Oxide of Mercury)

महागिरिषु चाल्पीय: पाषाणान्त: स्थितो रस:।
शुष्कशोण: स निर्दिष्टो गिरिसिन्दूरसंज्ञया।। 132।।
त्रिदोषशमनं भेदी रसबन्धनमग्रिमम्।
देहलोहकरं नेत्र्यं गिरिसिन्दूरमीरितम्।। 133।।

Between the fissures of the rocks, situated in the very high mountains, mercury is available, which is dry in nature and red in colour. This itself is called *girisindura.*

Girisindura alleviates all the three *doshas* and is *malabhedaka.* It is said to be best in doing *parada bhandhana* and is useful, both in *dehasiddhi* and *lohasiddhi.* Is is beneficial to eyes as well.

HINGULA
(Cinnabar)

हिङ्गुल: शुकतुण्डाख्यो हंसपादस्तथाऽपर:।
प्रथमोऽल्पगुणस्तत्र चर्मार: स निगद्यते।
श्वेतरेख: प्रवालाभो हंसपाद: स ईरित:।। 134।।

Shukatunda and *hamsapada* are two varieties of *hingula*. The former *shukatunda* is also called *charmara*. It has less therapeutical qualities. The later *hamsapada* variety of *hingula* is red like *pravala* (coral), with white lines on it.

Properties of Hingula

हिङ्गुलः सर्वदोषघ्नो दीपनोऽतिरसायनः।
सर्वरोगहरो वृष्यो जारणायातिशस्यते।
एतस्मादाहृतः सूतो जीर्णगन्धसमो गुणैः।। 135 ।।

Hingula is capable of alleviating all the *doshas* and is appetizer, as well as good *rasayana*. It eradicates all the diseases and is *vrishya* and very useful in the process of *jarana* of *parada*. The *parada* extracted from the *hingula* is as effective as the one which is undergone the *gandhaka jarana*.

Shodhana of Hingula

सप्त कृत्वाऽऽर्द्रकद्रावैर्लकुचस्याम्बुनाऽथ वा।
शोषितो भावयित्वाऽथ निर्दोषो जायते खलु।। 136 ।।
किमत्र चित्रं दरदः सुभावितः क्षीरेण मेष्या बहुशोऽम्लवर्गः।
एवं सुवर्णं बहुघर्मतापितं करोति साक्षाद्वरकुङ्कुमप्रभम्।। 137 ।।

In order to purify and make the *hingula* devoid of blemishes, it is subjected to seven *bhavanas* with the juice of either *ardraka* or *lakucha* and dried.

If *hingula* is triturated several times in *meshadugdha* or in substances like *kanji* etc., it is purified and attains beautiful red colour and looks like best kind of *keshara*.

Sattvapatana of Hingula

दरदः पातनायन्त्रे पातितश्च जलाशये।
तत्सत्त्वं सूतसङ्काशं जायते नात्र संशयः।। 138 ।।

If *hingula* is subjected to *patana* in *adhahapatana yantra*, the

sattva resembling to *parada* (mercury itself), collects in the water kept in the lower vessel, undoubtedly.

MRIDDARASHRINGA
(Litharge)

सदलं पीतवर्णं च भवेद् गुर्जरमण्डले।
अर्बुदस्य गिरेः पार्श्वे जातं मृद्दारशृङ्गकम्।। 139 ।।
सीससत्त्वं गुरुश्लेष्मशमनं पुङ्गदापहम्।
रसबन्धनमुत्कृष्टं केशरञ्जनमुत्तमम्।। 140 ।।

The *mriddarashringa* which has layers and yellow in colour is available at the flanks of the *Arbuda parvata* (Abu mountain).

Mriddarashringa is said to be the *sattva* of *sisa (naga)* (or the lead exists in the form of *sattva* in *mriddarashringa*). It is very heavy and alleviates *kapha dosha*. Apart from curing *upadamsha* (*napumsakata*) it is supposed to be best in the process of *parada bhandhana*. It dyes the hairs as well.

General Shodhana of Sadharana Rasas

साधारणरसाः सर्वे मातुलुङ्गार्द्रकाम्बुना।
त्रिरात्रं भाविताः शुष्का भवेयुर्दोषवर्जिताः।। 141 ।।

All the *sadharana rasa* can be made free from of blemishes by subjecting them to the trituration in *matulunga* juice and lemon juice for three days and dried.

General Shodhana of Sattva

यानि कानि च सत्त्वानि तानि शुद्ध्यन्त्यशेषतः।
ध्मातानि शुद्धिवर्गेण मिलन्ति च परस्परम्।। 142 ।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ रसरत्नसमुच्चये उपरससाधारणरसानां
शुद्ध्यादिनिरूपणं नाम तृतीयोऽध्यायः।

The *sattvas* are purified like *sadharana rasa* by grinding in juice of *matulunga* as well as *ardaraka* (fresh ginger), for three days in each.

These purified *sattvas* are rubbed in the drugs belonging to *shodhana varga*, kept in crucible and blowed in fire. By this, the *sattvas* mix together easily.

This completes the third chapter called "*Uparasa* and *Sadharanarasa Shuddhi Nirupana*" in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

4
Ratnas (Gemstones)

मणयोऽपि च विज्ञेयाः सूतबन्धनकारकाः।
(देहस्य धारका नृणां जराव्याधिविनाशकाः) ॥ 1 ॥

Even the *manis* (precious stones) or *ratnas* (jewels) are useful in the operation of *parada bhandhana.*

Apart from this, they help in maintaining the body as well as mover-powering the senility and diseases.

Names of Gemstones

वैक्रान्तः सूर्यकान्तश्च हीरकं मौक्तिकं मणिः।
चन्द्रकान्तस्तथा चैव राजावर्त्तश्च सप्तमः ॥ 2 ॥
गरुडोद्गारकश्चैव ज्ञातव्या मणयस्त्वमी।
पुष्परागं गोमेदश्च पद्मरागं प्रवालकम् ॥ 3 ॥
वैदूर्यं च तथा नील एतेऽपि मणयो मताः।
यत्नतः सङ्ग्रहीतव्या रसबन्धस्य कारणात् ॥ 4 ॥

Vaikrantha, *suryakanta*, (sun stone), *hiraka* (diamond), *mauktika* (pearl), *mani* (*sphtatika mani*), *chandrakanta* (moon stone), *rajavartta* (lapis lazuli) and *garudodgaraka* (*marakata*-emerald) are the eight *manis* or gemstones.

Pushparaga (topaz), *gomeda* (zircon), *padmaraga* (ruby), *pravala* (coral), *vaidhurya* (cat's eye) and *Nilamani* (sapphire) these too are called *manis* (*ratnas* or gemstones).

As these precious stones are very useful in the process of *parada bandhana*, they are to be collected and preserved with much efforts.

पद्मरागेन्द्रनीलाख्यौ तथा मरकतोत्तमः।
पुष्परागः सवज्राख्यः पञ्चरत्नवराः स्मृताः ।। 5 ।।

The five *ratnas* viz. *padmaraga, indranila, marakata, pushparaga* and *hiraka* (diamond) are considered as best among all the gemstones.

Gemstones Related to Navagrahas

माणिक्यमुक्ताफलविद्रुमाणि तार्क्ष्यञ्च पुष्पं भिदुरञ्च नीलम्।
गोमेदकञ्चाथ विदूरकञ्च क्रमेण रत्नानि नवग्रहाणाम् ।। 6 ।।

The gemstones *manikya, mukta, pravala, tarksya, pushparaga, hiraka, nilamani, gomeda* and *viduraka* respectively are said to have relation with the *navagrahas* (nine planets), i.e. *surya* (sun), *chandra* (moon), *mangala* (mars), *budha* (mercury), *guru* (jupiter), *shukra* (venus), *shani* (saturn), *rahu* and *ketu*. These gemstones please these planets.

ग्रहानुमैत्र्या कुरुविन्दपुष्पप्रवालमुक्ताफलतार्क्ष्यवज्रम्।
नीलाख्यगोमेदविदूरकञ्च क्रमेण मुद्राधृतमिष्टसिद्ध्यै ।। 7 ।।

The gemstones like *manikya, pushparaga, pravala, tarkshya, vajra, nilamani, gomeda, viduraka* if weared as rings according to their relation with the *graha* (planet), then the respective *graha* is said to become pleased.

रसे रसायने दाने धारणे देवतार्चने।
सुरक्ष्याणि सुजातीनि रत्नान्युक्तानि सिद्धये ।। 8 ।।

Whenever, the gemstones are to be used in *rasakarma, rasayana* or for giving away as gift or for wearing on the body, or for the worshipping the gods, always the best gemstones, without any blemishes should be used.

MANIKYA
(Ruby)

Varieties of Manikya

माणिक्यं पद्मरागाख्यं द्वितीयं नीलगन्धि च।
कुशेशयदलच्छायं स्वच्छं स्निग्धं गुरु स्फुटम् ।। 9 ।।
वृत्तायतं समं गात्रं माणिक्यं श्रेष्ठमुच्यते।
नीलं गङ्गाम्बुसम्भूतं नीलगर्भारुणच्छवि ।। 10 ।।
पूर्वमाणिक्यवच्छ्रेष्ठं माणिक्यं नीलगन्धि तत्।
रन्ध्रकार्कश्यमालिन्यरौक्ष्यावैशद्यसंयुतम्।
चिपिटं लघुवक्त्रं च माणिक्यं दुष्टमष्टधा ।। 11 ।।

Manikya is of two types. One is *padmaraga manikya* and another is *nilagandhi manikya*.

The *manikya* which is bright like red lotus, clear, unctuous heavy, oval in shape, with even outer surface is said to be best.

The *nilagandhi manikya* is available near the river of Ganga and it is red in colour with a blue tinge in the interior. The *nilagandhi manikya* which is having all the above qualities is also said to be best.

The *manikya* possessing the eight qualities viz., porousness, hardness, dirtyness, roughness, non-elasticity, flatness, lightness and crookedness is said to be discardable.

माणिक्यं दीपनं वृष्यं कफवातक्षयार्त्तिनुत्।
भूतवेतालपापघ्नं कर्मजव्याधिनाशनम् ।। 12 ।।

Manikya is appetizer as well as aphrodisiac. It alleviates *kapha* and *vata* and cures *kshayaroga* and wards off the evil effects of *bhuta-vetala* (evil spirits) etc. It resolves the sins and eradicates the diseases which are caused by the sins.

MOUKTIKA
(Pearl)

Qualities of Mouktika

ह्लादि श्वेतं लघु स्निग्धं रश्मिवन्निर्मलं महत्।
ख्यातं तोयप्रभं वृत्तं मौक्तिकं नवधा शुभम्।। 13।।

The *muktaphala* (pearl) having nine qualities viz., pleasantness, whiteness, lightness, unctuousness, lustrousness, largness, and roundness is supposed to be *shubha* (auspicious).

Properties of Mouktika

मुक्ताफलं लघु हिमं मधुरं च कान्तिदृष्ट्यग्निपुष्टिकरणं विषहारि भेदि।
वीर्यप्रदं जलनिधेर्जनिता च शुक्तिर्दीप्ता च पक्तिरुजमाशु हरेदवश्यम्।। 14।।
कफपित्तक्षयध्वंसि कासश्वासाग्निमान्द्यनुत्।
पुष्टिदं वृष्यमायुष्यं दाहघ्नं मौक्तिकं मतम्।। 15।।

Muktaphala is light for digestion and has *shita virya* as well as *madhuras rasa*. It enhances the complexion of the body and nourishes the vision as well as the digestive power. *Mukta* overcomes the *vishavikaras* and breaks the *doshas*. It increases the *virya* (the strength of semen).

Similarly, the *muktashukti* (pearl shell) also enhances the digestive power and undoubtedly cures the diseases related to digestion (the digestive organs).

Useless Mouktika

रूक्षाङ्गं निर्जलं श्यावं ताम्राभं लवणोपमम्।
अर्धशुभ्रं च विकटं ग्रन्थिलं मौक्तिकं त्यजेत्।। 16।।

The *mauktika* which is rough, unacqueous, looking like copper or salt, semiclear, crooked and having nodules is discarded.

PRAVALA
(Coral)

Features of Pravala

पक्वबिम्बफलच्छायं वृत्तायतमवक्रकम्।
स्निग्धमव्रणकं स्थूलं प्रवालं सप्तधा शुभम्।। 17।।

The *pravala* which has the seven features viz., redness like that of ripened *bimba phala*, ovalness, non-crookedness, unctuousness, non-scarness and largeness is said to be best and aupicious.

Agrahya Pravala (Inferior Coral)

पाण्डुरं धूसरं रूक्षं सव्रणं कोटरान्वितम्।
निर्भारं शुभ्रवर्णञ्च प्रवालं नेष्यतेऽशुभम्।। 18।।

Whiteness with yellow tinge, dirtiness, roughness, scary, cracky (having cracks), lightness and whiteness are the seven features of the inauspicious *pravala*, and such *pravala* is discarded.

Properties of Pravala

क्षयपित्तास्रकासघ्नं दीपनं पाचनं लघु।
विषभूतादिशमनं विद्रुमं नेत्ररोगनुत्।। 19।।

Pravala eradicates *kshaya*, *rakta pitta* and *kasa* and it is good appetizer as well as digestive. It is easily digestable and wards off the effects of evil spirits. It is useful in eye diseases.

TARKSHYA (MARAKATA)
(Emarald)

Features of Tarkshya

हरिद्वर्णं गुरु स्निग्धं स्फुरद्रश्मिचयं शुभम्।
मसृणं भासुरं तार्क्ष्यं गात्रं सप्तगुणं मतम्।। 20।।

The best *tarkshya* is that which has seven features viz. green colour, heavy, unctuous, lustrous (radiant), large, smooth and extremely bright.

Unworthy Tarkshya

कपिलं कर्कशं नीलं पाण्डु कृष्णं मलान्वितम्।
चिपिटं विकटं रूक्षं लघु तार्क्ष्यं न शस्यते।। 21।।

The *tarkshya* which is having *kapila* colour (reddish black), blue, yellowish white, and black; which is craky, flat, crooked, rough and light in weight is said to be not worthy of acceptance.

Properties of Tarkshya

ज्वरच्छर्दिविषश्वाससन्निपाताग्निमान्द्यनुत्।
दुर्नामपाण्डुशोफघ्नं तार्क्ष्यमोजोविवर्धनम्।। 22।।

Tarkshya can cure the diseases like *jvara, chardi, vishavaikara, shvasa, sannipata, agnimandya, arsha, panduroga* and *shotha*. Apart from this, it enhances the ojas in the body.

PUSHPARAGA
(Topaz)

Features of Pushparaga

पुष्परागं गुरु स्निग्धं स्वच्छं स्थूलं समं मृदु।
कर्णिकारप्रसूनाभं मसृणं शुभमष्टधा।। 23।।

The *pushparaga* posessing eight features viz. heavy, unctuous, large, equilateral, slightly soft, yellow like yellow coloured *karnikara* and lustorus is said to be best and auspicious.

Unworthy Pushparaga

निष्प्रभं कर्कशं रूक्षं पीतश्यामं नतोन्नतम्।
कपिशं कपिलं पाण्डु पुष्परागं परित्यजेत्।। 24।।

The *pushparaga* which is lustreless, hard, rough, yellowish black in colour or blackish red or reddish black (*kapila*) or yellowish white in colour and crooked, is not worthy and useless.

Properties of Pushparaga

पुष्परागं विषच्छर्दिकफवाताग्निमान्द्यनुत्।
दाहकुष्ठास्रशमनं दीपनं पाचनं लघु।। 25।।

Pushparaga is useful in *vishavikara, chardi* and it alleviates *kapha* and *vata dosha*. It can eradicate the diseases like *agnimandya, daha, kustha, raktavikara*. It is also an appetizer as well as digestive and is *laghu*.

VAJRA
(Diamond)

Varieties of Vajra

वज्रां च त्रिविधं प्रोक्तं नरो नारी नपुंसकम्।
पूर्वं पूर्वमिह श्रेष्ठं रसवीर्यविपाकत:।। 26।।

Vajra (diamond) is of three types; *pum vajra* (male), *stri vajra* (female), *napumsaka vajra* (hermophrodite). With the view of *rasa, virya* and *vipaka, stri vajra* is better than *napumsaka vajra* and *pum vajra* is better than *stri vajra*.

Features of Vajra

अष्टास्रञ्चाऽष्टफलकं षट्कोणमतिभासुरम्।
अम्बुदेन्द्रधनुर्वारितरं पुंवज्रमुच्यते।। 27।।
तदेव चिपिटाकारं स्त्रीवज्रं वर्तुलायतम्।
वर्तुलं कुण्ठकोणग्रं किञ्चिद् गुरु नपुंसकम्।। 28।।

The *vajra* which has eight cormers, eight planes and six angles extremely lustrous, bright like rainbow shining in the midst of clouds and which is *varitara* (very light) is called *pum vajra*.

The one which is having all the above feature but sightly flat and oval in shape is *stri vajra.*

Napumsaka vajra is round in shape, having mutilated angles and slightly heavy.

स्त्रीपुन्नपुंसकं वज्रं योज्यं स्त्रीपुन्नपुंसके।
व्यत्यासान्नैव फलदं पुंवज्रेण विना क्वचित्॥ 29॥

The *stri vajra*, the *pum vajra* and the *napumsaka vajra* are used respectively in women, men and hermphrodites. However, the *stri vajra* and *napumsalka vajra* are not useful for men. Similarly, *napumsaka vajra* is useless in case of women and men. However, the *pum vajra* can be used in all the cases.

श्वेतादिवर्णभेदेन तदेकैकं चतुर्विधम्।
ब्रह्मक्षत्रियविट्शूद्रं स्वस्ववर्णफलप्रदम्॥ 30॥

Each of the said *stri, pum* and *napumsaka vajra* are further classified into *shveta* (white), *rakta* (red), *pita* (yellow) and *krishana* (black) according to the colour. These gemstones are auspicious in case of *brahmin, kshatriya, vaishya* and *shudra*, respectively.

उत्तमोत्तमवर्णं हि नीचवर्णफलप्रदम्।
न्यायोऽयं भैरवेणोक्तो पदार्थेष्वखिलेष्वपि॥ 31॥

The substances which are used in case of people of higher (noble) race are fruitful in the lower class of people as well. However, the substances which are auspicious in the lower race of people are not useful in the people of noble race. This rule which is called *bhairava nyaya* explained by Bhairava is applicable to all kinds of materials.

Properties of Vajra

आयुष्प्रदं झटिति सद्गुणदञ्च वृष्यं दोषत्रयप्रशमनं सकलामयघ्नम्।
सूतेन्द्रबन्धवधसद्गुणकृत्प्रदीप्तं मृत्युञ्जयं तदमृतोपममेव वज्रम्॥ 32॥

Vajra increases the life span, brings about beneficial qualities in the body, alleviates all the three *doshas* and is capable of eradicating all the diseases. It is helpful in both *bandhana* and *marana* of *parada* apart from enhancing its qualities. *Vajra* is a good appetizer and can even conquer the death.

Doshas of Jemstones

ग्रासस्त्रासश्च बिन्दुश्च रेखा च जलगर्भता।
सर्वरत्नेष्वमी पञ्च दोषाः साधारणा मताः।
क्षेत्रतोयभवा दोषा रत्नेषु न लगन्ति ते॥ 33॥

Generally, all jemstones are afflicted with the defects, such as *grasa* (a portion of jem being opaque or sharp), *trasa* (a portion is discoloured or crooked), *bindu* (existance of discoloured spots or specks), *rekha* (lines on jemstone probably discoloured; if the stone falls down, the possibility of breaking at the lines is more) and *jalagarbhata* (a partial area in the stone seems to be filled with water or air). These are the five defects which are generally found in the jemstones. The defects which are caused by origin (i.e. mines) or by *jala* (water) which are generally seen in other minerals are not observed in the jemstones.

Shodhana of Vajra

कुलत्थक्काथके स्विन्नं कोद्रवक्कथितेन वा।
एकयामावधि स्विन्नं वज्रं शुद्ध्यति निश्चितम्॥ 34॥

In order to purify the *vajra,* it is tied into a *potali* and boiled in either the decoction of the *kulattha* or *kodrava*, in *dolayantra* for three hours.

Marana of Vajra

Marana I

वज्रं मत्कुणरक्तेन चतुर्वारं विभावितम्।
सुगन्धिमूषिकामांसैर्वर्त्तितैः परिवेष्ट्य च॥ 35॥
पुटेत्पुटैर्वराहाख्यैस्त्रिंशद्वारं ततः परम्।
ध्मात्वा ध्मात्वा शतं वारान्कुलत्थक्काथके क्षिपेत्।
अन्यैरुक्तः शतं वारान् कर्तव्योऽयं विधिः क्रमात्॥ 36॥

Vajra is first given the *bhavana* of blood of bedbugs and after drying, it is wrapped in the flesh of mouse. After covering it in the cloth, it is subjected to thirty *varaha putas*. Then after removing the diamond, it is heated strongly and dipped in the decoction of *kulattha* for ten times. According to some scholars, the process starting from four *bhavanas* of blood of bedbug upto the immersion in the decoction of *kulattha* is repeated for one hundred times.

Marana II

कुलत्थक्काथसंयुक्तलकुचद्रवपिष्टया ।
शिलया लिप्तमूषायां वज्रं क्षिप्त्वा निरुध्य च ।। 37 ।।
अष्टवारं पुटेत्सम्यग्विशुष्कैश्च वनोपलैः ।
शतवारं ततो ध्मात्वा निक्षिप्तं शुद्धपारदे ।। 38 ।।
निश्चितं म्रियते वज्रं भस्म वारितरं भवेत् ।
सत्यवाक् सोमसेनानीरेतद्वज्रस्य मारणम् ।
दृष्टप्रत्ययसंयुक्तमुक्तवान् रसकौतुकी ।। 39 ।।

The *manahshila* is rubbed in the decoction of *kulattha* and juice of *lakucha*, and the resultant paste is applied inside a *musha* (crucible). The *vajra* is kept in this crucible and after sealing its mouth and drying, it is kept in the midst of cowdung cakes and given eights *putas*. After removing the *vajra* from the *puta*, it is once again heated in the intensive fire and dipped in purified mercury for one hundred times. By this, certainly the *varitara bhasma* of *vajra* is available. This method of *marana* of *vajra*, which was his own experience, is told by Somasenani who was a scholar in the Rasashastra.

Marana III

विलिप्तं मत्कुणस्यास्रैः सप्तवारं विशोषितम् ।
कासमर्दरसापूर्णे लोहपात्रे निवेशितम् ।। 40 ।।
सप्तवारं परिध्मातं वज्रभस्म भवेत् खलु ।
ब्रह्मज्योतिमुनीन्द्रेण क्रमोऽयं परिकीर्तितः ।। 41 ।।

The blood of bed bug is smeared over the *vajra* and dried. This is repeated for seven times. Then it is heated intensively and immersed in the juice of *kasamarda*, which is kept in an iron vessel. This process is repeated for seven times. This yields the *bhasma* of *vajra*. This method is described by Brahmajyoti Munindra.

Marana IV

नीलज्योतिलताकन्दे घृष्टं घर्मे विशोषितम् ।
वज्रं भस्मत्वमायाति कर्मवज्ज्ञानवह्निना ।। 42 ।।

The powder of *vajra* is ground in the juice of *nilajyoti* (*aparajita* or *nilakanda* or *kshira kakoli kanda*), dried in the sunrays and subjected to *puta*. By this, *vajra* will become *bhasma* like the *karmas* burning to ash in the fire of knowledge.

Marana V

मदनस्य फलोद्भूतरसेन क्षोणिनागकैः ।
कृतकल्केन संलिप्य पुटेद्विंशतिवारकम् ।
वज्रचूर्णं भवेद्वर्य्यं योजयेच्च रसादिषु ।। 43 ।।

The *kalka* (paste) is prepared by rubbing the earthworms in the juice or decoction of *madanaphala*. This paste, then is applied over the *vajra*, confined to *samputa* and subjected to *puta*. Such twenty *putas* are necessary to obtain best *bhasma* of *vajra*. It is used in *rasyana* and such other therapies.

Administration of Vajra

तद्वज्रं चूर्णयित्वाथ किञ्चिट्टङ्कणसंयुतम् ।
खरभूनागसत्त्वेन विंशेनावर्तवेद्ध्रुवम् ।। 44 ।।
तुल्यस्वर्णेन तद्ध्मातं योजनीयं रसादिषु ।
त्रिगुणेन रसेनैव सम्मर्द्य गुटिकीकृतम् ।
मुखे धृतं करोत्याशु चलद्दन्तविबन्धनम् ।। 45 ।।

This *vajra bhasma* prepared as above is mixed with little

amount of *tankana bhasma* and 1/20 of *sattva* obtained from earth worms and equal quantity of *bhasma* of *svarna*. This mixture is kept in a crucible and blowed (heated) which would make this formulation more effective. It is then used in *rasayana* therapy.

One part of *vajra bhasma* and equal quantity of purified *parada* are together rubbed well to prepare a pill. If this pill is kept in the mouth, the loosened teeth become strong.

त्रिंशद्भागमितं हि वज्रभसितं स्वर्णं कलाभागिकम्,
तारं चाष्टगुणं सिताऽमृतवरं रुद्रांशकं चाभ्रकम्।
पादांशं खलु ताप्यकं वसुगुणं वैक्रान्तकं षड्गुणम्,
भागोऽप्युक्तरसै रसोऽयमुदित: षाड्गुण्यसंसिद्धये।। 46।।

Thirty parts of *vajra bhasma*, sixteen parts of *svarna bhasma*, eight parts of *raupya bhasma*, eleven parts of *naga bhasma*, four parts of *abhraka bhasma*, eight parts of *svarna makshika bhasma*, and six parts of *vaikranta bhasma* are taken together and rubbed very well. This combination, consumed in a small dosage can obtain the *shadgunas* or six qualities, (according to Charaka these six qualities are *vidya*, *vitarka*, *vignana*, *smriti*, *tatparata*, and *kriya* or these six qualities are *sandhi*, *vigraha*, *asana*, *dvaidha* and *ashraya*).

NILAMANI
(Sapphire)

Varieties of Nilamani

जलनीलेन्द्रनीलञ्च शक्रनीलं तयोर्वरम्।
श्वैत्यगर्भितनीलाभं लघु तज्जलनीलकम्।
काष्र्ण्यगर्भितनीलाभं सभारं शक्रनीलकम्।। 47।।

Nilamani is of two types. One is *indranila* and another is *jalanila*. Among them *indranila mani* is said to be superior.

The *nilamani* which is whitish blue in the *garbha* (inside) and light in weight is *jalanila*, whereas the one which has deep blue colour internally and heavy is called *indranila*.

एकच्छायं गुरु स्निग्धं स्वच्छं पिण्डितविग्रहम्।
मृदु मध्ये लसज्ज्योति: सप्तधा नीलमुत्तमम्।। 48।।
कोमलं विहितं रूक्षं निर्भारं रक्तसन्धि च।
चिपिटाभं ससूक्ष्मञ्च जलनीलं हि सप्तधा।। 49।।

Ekachchaya (having uniform lustre or having single colour through out), heavy, unctuous, round in shape, clear, soft (pleasant to touch) and intensive lustre in the centre. These are the seven qualities of the superior *indranila*.

Jalanila has seven qualities such as tenderness, *vihita* (half the portion has one colour and other half another colour), roughness, lightness in weight, reddishness in colour (or having the smell of blood), flatness and smallness.

Properties of Nilamani

श्वासकासहरं वृष्यं त्रिदोषघ्नं सुदीपनम्।
विषमज्वरदुर्नामपापघ्नं नीलमीरितम्।। 50।।

Nilamani can eradicate the diseases like *shvasa*, *kasa*, *vishama jvara* and *arsha*. It is *vrishya* (aphrodisiac), alleviates three *doshas* and wards off the sins.

GOMEDA
(Zircon)

Characteristics of Gomeda

गोमेद: समरागत्वाद् गोमेदं रत्नमुच्यते।
सुस्वच्छगोजलच्छायं स्वच्छं स्निग्धं समं गुरु।। 51।।
निर्दलं मसृणं दीप्तं गोमेदं शुभमष्टधा।
विच्छायं लघु रूक्षाङ्गं चिपिटं पटलान्वितम्।
निष्प्रभं पीतकाचाभं गोमेदं न शुभावहम्।। 52।।

As it has the colour which resembles the fat of a cow, it is called *gomeda*. This *gomeda* is having the colour of cow's urine

and is clear, unctuous, equilateral, heavy, without layers, tender and lustrous. The *gomeda* having above eight qualities is supposed to be superior.

The *gomeda* which is lustreless, light in weight, having rough area, flat in shape with layers, without brightness and which looks like a piece of yellow glass is said to be useless.

Properties of Gomeda

गोमेदं कफपित्तघ्नं क्षयपाण्डुक्षयङ्करम्।
दीपनं पाचनं रुच्यं त्वच्यं बुद्धिप्रबोधनम्।। 53।।

Gomeda alleviates *kapha* and *pitta* and can cure *kshaya* and *pandu roga*. It is a good appetizer, digestive, and increases taste. *Gomeda* can improve the complexion of the skin and also the intellect.

VAIDURYA
(Cat's eye)

Characteristics of Vaidurya

वैदूर्यं श्यामशुभ्राभ समं स्वच्छं गुरु स्फुटम्।
अभ्रशुभ्रोत्तरीयेण गर्भितं शुभमीरितम्।। 54।।
श्यामं तोयसमच्छायं चिपिटं लघुकर्कशम्।
रक्तगर्भोत्तरीयं च वैदूर्यं नैव शस्यते।। 55।।

The *vaidurya* which is bright, of *shyamala* (bright blue) colour, equilateral, clear, heavy, lustrous and which has white stripes (lines), brightness like mica is said to be best in quality.

The one which is having *shyama* (blue) colour, watery (devoid of lustre), flat, light in weight, rough and which has red coloured lines, is inferior.

Properties of Vaidurya

वैदूर्यं रक्तपित्तघ्नं प्रज्ञायुर्बलवर्धनम्।
पित्तप्रधानरोगघ्नं दीपनं मलमोचनम्।। 56।।

The *vaidurya* relieves the *raktapitta* and enhances the intellect, life span and strength. It is best in warding off the diseases occured by vitiated *pitta*, apart from being appetizer as well as bowel cleanser.

Shodhana of all Jemstones

शुद्ध्यत्यम्लेन माणिक्यं जयन्त्या मौक्तिकं तथा।
विद्रुमं क्षारवर्गेण ताक्ष्यं गोदुग्धकैस्तथा।। 57।।
पुष्परागं च सन्धानैः कुलत्थक्काथसंयुतैः।
तन्दुलीयजलैर्वज्रं नीलं नीलीरसेन च।।
रोचनाभिश्च गोमेदं वैदूर्यं त्रिफलाजलैः।। 58।।

The *manikya* (ruby) can be purified by boiling (in *dola yantra*) in the juice of *amlika* (or any sour liquids). Similarly, *mukta* (pearl), in the juice of *jayanti*, *pravala* in the solvent of the drugs belonging to *kshara varga*, *tarkshya* (emerald) in cow's milk, *pushparaga* in the decoction of *kulattha* and *vajra* (diamond) in *kanji*, are boiled to make them *shuddha*. In the same way if *Nilamani* is boiled in the juice of *nila*, *gomeda* boiled in the decoction of *gorochana* and *vaidurya* in the decoction of *triphala*, they become *shuddha*.

Marana of Jemstones

लकुचद्रावसम्पिष्टैः शिलागन्धकतालकैः।
वज्रं विनान्यरत्नानि म्रियन्तेऽष्टपुटः खलु।। 59।।

Equal quantities of purified *manahshila*, *gandhaka* and *haratala* and any other jemstones (except diamond) are taken together and rubbed in the juice of *lakucha*. The mixture then is put in *sharava samputa* and subjected to eight *gajaputa* to obtain the *bhasma* of the respective jemstones.

Druti (Liquid) of Jemstones

रामठं पञ्चलवणं क्षाराणां त्रितयं तथा।
मांसद्रवोऽम्लवेतश्च चूल्लिकालवणं तथा।। 60।।
स्थूलं कुम्भीफलं पक्कं तथा ज्वालामुखी शुभा।
द्रवन्ती च रुदन्ती च पयस्या चित्रमूलकम्।। 61।।
दुग्धं स्नुह्यास्तथाऽर्कस्य सर्वं सम्मर्द्य यत्नतः।
गोलं विधाय तन्मध्ये प्रक्षिपेत्तदनन्तरम्।। 62।।
गुणवन्नवरत्नानि जातिमन्ति शुभानि च।
भूर्जे तं गोलकं कृत्वा सूत्रेणावेष्ट्य यत्नतः।। 63।।
पुनर्वस्त्रेण संवेष्ट्य दोलायन्त्रे निधाय च।
सर्वाम्लयुक्तसन्धानपरिपूर्णघटोदरे।। 64।।
अहोरात्रत्रयं यावत् स्वेदयेत्तीव्रवह्निना।
तस्मादाहृत्य सङ्क्षाल्य रत्नजां द्रुतिमाहरेत्।
रत्नतुल्यप्रभा लघ्वी देहलोहकरी शुभा।। 65।।

A ball is prepared by grinding the drugs such as *hingu, pancha lavana, ksharatraya, mamsadrava* (a variety of *amlavetasa*) *amlavetasa, navasagar*, ripened *jayapala bija, jvalamukhi* (*bhallataka*), *dravanti, rudravanti, payasya* (*kshira kakoli*), *chitramula, arka kshira,* (latex of *arka*) and latex of *snuhi*. The jemstones (or all the nine *ratnas*) having auspicious and superior qualities, are kept inside this ball and covered with leaves of *bhurja* and tied securely with thread. It is then kept in the *dolayantra* which is filled with the juices of same drugs as well as *kanji* and boiled for three days and three nights in the intensive fire. Then the *potali* is taken out, washed and the *druti* of the jemstone is collected. This *druti* which is shining like jemstone itself, is very good in achieving both the *dehasiddhi* and *lohasiddhi*.

Dravana (Liquid) of Mukta

मुक्ताचूर्णं तु सप्ताहं वेतसाम्लेन मर्दितम्।
जम्बीरोदरमध्ये तु धान्यराशौ विनिक्षिपेत्।
सप्ताहादुद्धृतं चैव पुटे धृत्वा द्रुतिर्भवेत्।। 66।।

The powder of the pearl is rubbed in the juice of *amlavetasa* for seven days and kept inside the *jambira* fruit which is in turn buried inside the heap of grains. Then the paste is taken out after seven days, kept in *sharava samputa* and subjected to *puta*, which yields the *druti* of pearls.

Dravana of Vajra

वज्रवल्यन्तरस्थञ्च कृत्वा वज्रं निरोधयेत्।
अम्लभाण्डगतं स्वेद्यं सप्ताहाद् द्रवतां व्रजेत्।। 67।।

Vajra is powdered and that powder is kept inside the *kalka* (paste) of *vajravalli (asthisandhanaka-asthishrinkala)* and a ball is prepared. This ball (after covering with *bhurja* leaves and making a *potali*), then is boiled in *dolayantra* containing sour liquids and *kanji* for seven days. This yields the *dravana* (solution) of *vajra*.

Dravana of Vaikranta I

श्वेतवर्णं तु वैक्रान्तमम्लवेतसभावितम्।
सप्ताहान्नात्र सन्देहः खरघर्मे द्रवत्यलम्।। 68।।

If the white coloured *vaikranta* is given the *bhavana* in the juice of *amlavetasa* and kept in hot sunrays for seven days, the *dravana* of *vaikranta* is available.

Dravana of Vaikranta II

केतकीस्वरसं ग्राह्यं सैन्धवं स्वर्णपुष्पिका।
इन्द्रगोपकसंयुक्तं सर्वं भाण्डे विनिक्षिपेत्।
सप्ताहं स्वेदयेत्तस्मिन् वैक्रान्तं द्रवतां व्रजेत्।। 69।।

A ball is prepared by rubbing the mixture of juice of *ketaki*, *saindhava lavana, svarnapushpi* and *indragopa* (a type of insect). The powder of *vaikranta* is placed in the midst of this ball and *svedana* is carried out for seven day in *dolayantra* consisting of sour liquid and *kanji* to obtain the *druti* of *vaikranta*.

Dravana of Other Materials

लोहाष्टके तथा वज्रे वापनात्स्वेदनाद्द्रुतिः।
जायते नात्र सन्देहो योगस्यास्य प्रभावतः।
कुरुते योगराजोऽयं रत्नानां द्रावणं परम्।। 70 ।।

The *druti* of *vaikranta* as prepared above is mixed with the *bhasma* of *lohastaka* (eight metals, viz. gold, silver, copper, tin, lead, brass, bronze and iron) or in the *bhasma* of *vajra* and prepared a *potali* with the help of leaves of *bhurja*. This *potali* is subjected to *svedana* in sour liquid and *kanji* for seven days which yields in *druti* of all the *lohas*. This *vaikranta druti* is highly potent and useful in preparing the *druti* of all the jemstones.

Preservation of Druti

कुसुम्भतैलमध्ये तु संस्थाप्या द्रुतयः पृथक्।
तिष्ठन्ति चिरकालं तु प्राप्ते कार्यं नियोजयेत्।। 71 ।।

If all the *drutis* (liquids of the minerals) are kept separately in *kusumbha* oil, they remain in the liquid form for longer period. They can be taken out from the oil and used whenver any need arises.

Wearing of Jemstones

सूर्यादिग्रहनिग्रहापहरणं दीर्घायुरारोग्यदं,
सौभाग्योदयभाग्यवश्यविभवोत्साहप्रदं धैर्यकृत्।
दुश्छायाचलधूलिसङ्गतिभवाऽलक्ष्मीहरं सर्वदा,
रत्नानां परिधारणं निगदितं भूतादिभिर्नाशनम्।। 72 ।।

The evil effects of *graha* (planets) like sun etc., will be warded off by wearing the jemstones and longivity as well as health can be acquired. One will achieve the prosperity and can possess the power of controlling other. On wearing these precious stones zeal and valour increase. Also the ill effects due to contact of evil spirits are also stalled.

(The above seventy two verse are in original text. The verses here afterwards are taken from different texts).

SURYAKANTA
(Sun Stone)

रविकान्तो भवेदुष्णो निर्मलश्च रसायनः।
वातश्लेष्महरो मेध्यः पूजनादवितुष्टिदः।। 73 ।।
शुद्धः स्निग्धो निर्व्रणो निस्तुषोऽन्तर्यो निर्घृष्टोऽत्यन्तनैर्मल्यमेति।
यः सूर्यांशुस्पर्शनिस्यूतवह्निर्जात्यः सोऽयं कथ्यते सूर्यकान्तः।। 74 ।।

The *suryakanta mani* is hot in nature, clear and is *rasayana*. It alleviates *vata* and *kapha* and is good *medhya*. By worshipping *suryakanta*, the Sun God is said to be pleased. The *suryakanta* which is pure, slimmy, devoid of scars and grains, gets more lustre on rubbing and which produces fire when comes in contact with sunrays, is said to be superior.

CHANDRAKANTA
(Moon Stone)

शिशिरचन्द्रकान्तस्तु स्निग्धः पित्तास्रतापनुत्।
शिवप्रीतिकरः स्वच्छो ग्रहालक्ष्मीविनाशनः।। 75 ।।
स्निग्धं शीतं पीतमत्रासमन्तः धत्ते चित्ते स्वच्छतां यन्मुनीनाम्।
यश्च स्रावं याति चन्द्रांशुसङ्गाद् जात्यं रत्नं चन्द्रकान्ताख्यमेतत्।। 76 ।।

The *chandrakanta mani* is *shita* and *snigdha* and alleviates *pitta* as well as *rakta*. It pleases Lord Shankara. This *mani* which is clean and bright white, can ward off the ill effects of planets as well as poverty. The *chandrakanta mani* which is cool to touch, yellowish in colour, devoid of *tusha dosha* (blemish of grains), the internal part of which is like the concious mind of *sages* and which dissolves when comes in contact with moon rays is said to be best.

Dravana of Other Materials

लोहाष्टके तथा वज्रे वापनात्स्वेदनाद्द्रुतिः।
जायते नात्र सन्देहो योगस्यास्य प्रभावतः।
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Wearing of Jemstones

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दुश्छायाचलधूलिसङ्गतिभवाऽलक्ष्मीहरं सर्वदा,
रत्नानां परिधारणं निगदितं भूतादिभिर्नाशनम्।। 72।।

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शुद्धः स्निग्धो निर्व्रणो निस्तुषोऽन्तर्यो निर्घृष्टोऽत्यन्तनैर्मल्यमेति।
यः सूर्यांशुस्पर्शनिस्यूतवह्निर्जात्यः सोऽयं कथ्यते सूर्यकान्तः।। 74।।

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CHANDRAKANTA
(Moon Stone)

शिशिरचन्द्रकान्तस्तु स्निग्धः पित्तास्रतापनुत्।
शिवप्रीतिकरः स्वच्छो ग्रहालक्ष्मीविनाशनः।। 75।।
स्निग्धं शीतं पीतमत्रासमन्तः धत्ते चित्ते स्वच्छतां यन्मुनीनाम्।
यश्च स्रावं याति चन्द्रांशुसङ्गाद् जात्यं रत्नं चन्द्रकान्ताख्यमेतत्।। 76।।

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RAJAVARTA
(Lapis Lazuli)

Characteristics of Rajavarta

राजावर्तोऽल्परक्तोरुनीलिमामिश्रितप्रभः।
गुरुश्च मसृणः श्रेष्ठस्तदन्यो मध्यमः स्मृतः।। 77।।

Rajavarta is reddish blue in colour and bright. The one which is heavy and slimmy is said to be superior. The *rajavarta* without having such qualities is medium.

Properties of Rajavarta

प्रमेहक्षयदुर्नामपाण्डुश्लेष्मानिलापहः।
दीपनः पाचनो वृष्यो राजावर्तो रसायनः।। 78।।

Rajavarta can eradicate *prameha*, *kshaya*, *arsha*, *pandu* and alleviates *kapha* and *vata*. It is good appetizer, digestive, and rejuvenator.

Shodhana of Rajavarta

निम्बुद्रवैः सगोमूत्रैः सक्षारैः स्वेदिता खलु।
द्वित्रिवारेण शुद्ध्यन्ति राजावर्तादिधातवः।
शिरीषपुष्पार्द्ररसैः राजावर्तं विशोधयेत्।। 79।।

Rajavarta becomes *shuddha* if it is subjected to *svedana* in the mixture of lime juice, cow's urine and the *yavakshara*, for two to three times with the help of *dola yantra*. It can also be purified by performing *svedana* in the liquid mixture of juice or decoction of *shirisha* flower and juice of ginger.

Marana of Rajavarta

लुङ्गाम्बुगन्धकोपेतो राजावर्तो विचूर्णितः।
पुटनात्सप्तवारेण राजावर्तो मृतो भवेत्।। 80।।

The powder of the *rajavarta* is mixed with equal quantity of *gandhaka* and ground in the juice of *matulunga* and after keeping it in the *sharavasamputa*, subjected to seven *gajaputa* to obtain the *bhasma* of *rajavarta*.

Sattvapatana of Rajavarta

राजावर्तस्य चूर्णन्तु कुनटीघृतमिश्रितम्।
विपचेदायसे पात्रे महिषीक्षीरसंयुतम्।। 81।।
सौभाग्यपञ्चगव्येन पिण्डीबद्धन्तु जारयेत्।
ध्मापितं खदिराङ्गारैः सत्त्वं मुञ्चति शोभनम्।। 82।।

The mixture of equal quantities of powder of *rajavarta* and *manahashila* are ground in cow's ghee. It is then boiled four times in buffalo's milk in an iron vessel, until it becomes moderately solid. Then it is mixed with *tankana* and *panchagavya*, and by grinding, a *pindi* (ball) is prepared. This ball is dried, kept in a crucible and heated in the fire made by coal obtained from the wood of *khadira*. This would yield the beautiful *sattva* of *rajavarta*.

Gairika Shodhana & Sattvapatana

अनेन क्रमयोगेन गैरिकं विमलं भवेत्।
क्रमात् पीतञ्च रक्तञ्च सत्त्वं पतति शोभनम्।। 83।।

Shodhana and *sattvapatana* of *gairka* is carried out in the way similar to those of *rajavarta*. By this process the yellow *sattva* of *rajvarta* as well as beautiful red coloured *sattva* of *gairika* can be obtained.

SPHATIKAMANI
(Rock Crystal)

Characteristics of Sphatika

स्फटिकः समवीर्यः स्यात् पित्तदाहार्तिशोषनुत्।
तस्याक्षमालां जपतां दत्ते कोटिगुणं फलम्।। 84।।

Sphatika is having *samavirya* (neither hot nor cold) and alleviates *pitta*. It reduces burning sensation and *shosha*. If *japa* (chanting of prayer) is performed with the help of a *mala* (a line of beads inserted in a thread) of beads of *sphatika mani*, it is said to be crore times beneficial.

Best Sphatika Mani

यद् गङ्गातोयबिन्दुच्छवि विमलतमं निस्तुषं नेत्रहृद्यम्,
स्निग्धं शुद्धान्तरालं मधुरमतिहिमं पित्तदाहास्रहारि।
पाषाणैर्यन्निघृष्टं स्फुटितमपि निजां स्वच्छतां नैव जह्यात्,
तज्जात्यं जात्वलभ्यं शुभमुपनुते शैवरत्नं विचित्रम्।। 85।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्य कृतौ रसरत्नसमुच्चये
रत्नानां शुद्ध्यादिनिरूपणं नाम चतुर्थोऽध्यायः।

The *sphatika mani* which is pure, clear, devoid of grains, which is good for eyes and heart, slimmy, having clear internal area, cool to touch, having *madhura rasa* and *vipaka*, that which alleviates *pitta*, *raktadosha* and burning sensation, which does not loose its lustre on rubbing on stone (or when broken) is said to be superior. However, such *sphastika mani* is difficult to obtain. But it is extremely dear to Lord Shankara and also brings about prosperity.

This completes the fourth chapter called *Ratnas* (Gemstones) *Shuddhyadi Nirupana* in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapti Simhagupta.

5
Lohas (Metals)

शुद्धं लोहं कनकरजतं भानुलोहाश्मसारम्
पूतीलोहं द्वितयमुदितं नागवङ्गाभिधानम्।
मिश्रं लोहं त्रितयमुदितं पित्तलं कांस्यवर्तम्।
धातुर्लोहे लुह इति मतः सोऽपिर्षार्थवाची।। 1।।

There are four *shuddha lohas,* viz. *svarna* (gold), *rajata* (silver), *tamra* (copper), and *loha* (iron). *Puti lohas* are two, i.e. *naga* (lead) and *vanga* (tin). *Mishra lohas* (alloys) are three in number. They are *pittala* (brass), *kamsya* (bronze) and *vartaloha* (bell metal) The term '*loha* is derived from the root '*luh*' which means to extract, to pull out.

SVARNA
(Gold)

Varieties of Svarna

प्राकृतं सहजं वह्निसम्भूतं खनिसम्भवम्।
रसेन्द्रवेधसञ्जातं स्वर्णं पञ्चविधं स्मृतम्।। 2।।
ब्रह्माण्डं संवृतं येन रजोगुणभुवा खलु।
तत्प्राकृतमिति प्रोक्तं देवानामपि दुर्लभम्।। 3।।
ब्रह्मा येनाऽवृतो जातः सुवर्णेन जरायुणा।
तन्मेरुरूपतां यातं सुवर्णं सहजं हि तत्।। 4।।
विसृष्टमग्निना शैवं तेजः पीतं सुदुःसहम्।
अभूत्सर्वं समुद्दिष्टं सुवर्णं वह्निसम्भवम्।। 5।।
एतत्स्वर्णत्रयं दिव्यं वर्णैः षोडशभिर्युतम्।
धारणादेव तत्कुर्याच्छरीरमजरामरम्।। 6।।

तत्र तत्र गिरीणां हि जातं खनिषु यद्भवेत्।
तच्चतुर्दशवर्णाढ्यं भक्षितं सर्वरोगहृत्।। 7 ।।
रसेन्द्रवेधसम्भूतं तद्वेधजमुदाहृतम्।
रसायनं महाश्रेष्ठं पवित्रं वेधजं हि तत्।। 8 ।।

Svarna is of five types, i.e. *prakrita, sahaja, agni sambhava, khanija* and *paradavedhi.*

The one which completely encloses the whole *brahmanda* (Universe) and evolved from the *rajoguna* is said to be the *prakrita svarna.* This kind of *svarna* is not available, even to the Gods.

From the covering of *jarayu* (womb) from which the Brahma is evolved and the feature of which is enormous like that of Meru Parvata is called the *sahaja svarna.*

The Lord Agni vomited, i.e. Shiva's *virya* (semen) which was having the intolerable radiance. Soon after the vomitus converted into gold. This gold which came out of the mouth of Agni is known as *agni sambhava svarna.*

All the three types of gold, as mentioned above, have excellent qualities and also have *shodasha kalas* (sixteen specific properties). Such *svarna* if put on one's self, one becomes immortal and ageless.

The gold which is available in the mines at various mountains here and there, possesses fourteen qualities. Such *svarna* if consumed, can eradicate all kinds of diseases.

The *svarna* which is produced with the help of *parada* which has undergone the *vedha samskara* is called *parada-vedha svarna.* It is said to be an execellent rejuvenator.

Properties of Svarna

आयुर्लक्ष्मीप्रभाधीस्मृतिकरमखिलव्याधिविध्वंसिपुण्यं,
भूतावेशप्रशान्तिस्मरभरसुखदं सौख्यपुष्टिप्रकाशि।
गाङ्गेयं चाथ रूप्यं गदहरमजराकारि मेहापहारि,
क्षीणानां पुष्टिकारि स्फुटमतिकरणं वीर्यवृद्धिप्रकारि।। 9 ।।

स्निग्धं मेध्यं विषगदहरं बृंहणं वृष्यमग्र्यं,
यक्षोन्मादप्रशमनपरं देहरोगप्रमाथि।
मेधाबुद्धिस्मृतिसुखकरं सर्वदोषामयघ्नं,
रुच्यं दीप्तिप्रशमितरुजं स्वादुपाकं सुवर्णम्।। 10 ।।
सौख्यं वीर्यं बलं हन्ति रोगवर्गं करोति च।
अशुद्धममृतं स्वर्णं तस्माच्छुद्धं च मारयेत्।। 11 ।।

The gold enhances the life span, wealth, body complexion, intellect and memory. It can eradicate the spell of evil spirits and is also good aphrodisiac. It brings about a sense of well being and provides nourishment to the body.

The *roupya* (silver) too like *svarna*, can eradicate all the diseases, senility and *prameha.* It can nourish the weak, improves the intellect and enhances the quantity of semen.

Svarna is unctuous, a good braintonic, aphrodisiac and eradicates effect of poisoning. It cures *yakshnomada* and many other diseases. It improves the *dharana shakti* (fortitude) and *grahana shakti* (memory power). *Svarna* can cure the diseases caused by all the three *doshas.* It improves the taste as well as digestive powers. *Svarna* is *madhura* in *vipaka* and wards off all types of diseases.

The *svarna* which is not undergone the *shodhana* as well as *marana* process, destroys bodily well being, semen and strength of the body, apart from causing many diseases. Hence, only after proper *shodhana* alone, *svarana* is taken for *marana* process.

Svarna Varnakara (Brightning of Gold)

कर्षप्रमाणं तु सुवर्णपत्रं शरावरुद्धं पटुधातुयुक्तम्।
अङ्गारसंस्थं प्रहरार्धमानं ध्मातेन तत्स्यान्ननु पूर्णवर्णम्।। 12 ।।

One *tola* (about 11.5 gm) of gold in the form of thin leaves (which can be pierced with a needle) are taken and the mixture of *gairika* and *saindhava lavana* is applied over them. These are then kept in *sharava samputa*, heated in the midst of fire of coal for three hours. By this *svarna* attains excellent colour.

Common Shodhana of Metals

तैले तक्रे गवां मूत्रे ह्यारनाले कुलत्थजे।
क्रमान्निषेचयेत् तप्तं द्रावे द्रावे तु सप्तधा।
स्वर्णादिलोहपत्राणां शुद्धिरेषा प्रशस्यते।। 13।।

In order to purify the *svarna* and such metals, they are made into thin leaves and heated intensively in the fire. Then they are immersed in the *taila* (oil), *takra* (butter milk), *gomutra* (cow's urine), *kanji* (gruel) and *kulattha quatha* (decoction of *kulatha*), in that order, for seven times, in each of the liquid. This process purifies the metals.

Common Marana of Metals

लोहानां मारणं श्रेष्ठं सर्वेषां रसभस्मना।
मूलीभिर्मध्यमं प्राहु: कनिष्ठं गन्धकादिभि:।
अरिलोहेन लोहस्य मारणं दुर्गुणप्रदम्।। 14।।

It is best to perform *marana* of *svarna* and other metals with the help of *parada bhasma*. The *marana* of such metals carried out with the assistances of herbal drugs is supposed to be medium and with the help of *gandhaka*, it is said to be inferior. However, the *marana* of the metals if performed with the help of *arilohas* (*haratala*, *manahshila* and *anjana*, *i.e.* the minerals with antagonistic characters) can lead to adverse effects.

Marana of Svarna

कृत्वा कण्टकवेध्यानि स्वर्णपत्राणि लेपयेत्।
लुङ्गाम्बुभस्मसूतेन म्रियते दशभि: पुटै:।। 15।।
द्रुते विनिक्षिपेत्स्वर्णे लोहमानं मृतं रसम्।
विचूर्ण्य लुङ्गतोयेन दरदेन समन्वितम्।
जायते कुङ्कुमच्छायं स्वर्णं द्वादशभि: पुटै:।। 16।।
हेम्न: पादं मृतं सूतं पिष्टमम्लेन केनचित्।
पित्रे लिप्त्वा पुटै: पच्यादष्टभिम्रियते ध्रुवम्।। 17।।

(i) Very thin (piercible with pin or thorn) leaves of gold are prepared and a paste prepard by grinding *parada bhasma* in the juice of *matulanga* is applied over them. After drying, they are kept in the *sharava samputa* and subjected to *gajaputa* to obtain the *bhasma* of *svarna*.

(ii) *Svarna* is melted in a crucible and equal quantity of *parada bhasma* is added. Then the mixture is taken out, mixed with equal quantity of *hingula* and ground with the juice of *matulanga*, *chakrikas* are prepared and after keeping them in *sharava samputa*, subjected to twelve *putas*. This yields the *svarna bhasma* having the colour of *kumkuma keshara*.

(iii) *Parada bhasma* in quater quantity of *svarna* is ground in any of the sour liquids to prepare a paste. Then this paste is applied over the leaves of gold and kept in *sharava samputa* and given eight *putas* to obtain the *svarna bhasma*.

Properties and Uses of Svarna

एतद्भस्म सुवर्णजं कटुघृतोपेतं द्विगुञ्जोन्मितं,
लीढं हन्ति नृणां क्षयाग्निसदनं श्वासं च कासारुचिम्।
ओजोधातुविवर्धनं बलकरं पाण्ड्वामयध्वंसनं,
पथ्यं सर्वविषापहं गरहरं दुष्टग्रहण्यादिनुत्।। 18।।

The *bhasma* of *svarna* thus obtained as described above, if consumed along with powerd of *marich* (or *trikatu*) and ghee, can cure *kshaya, agnimandya, svasa, kasa* and *aruchi*. This therapy also promotes *ojas* (vitality) and strength. Apart from this it eradicates effects of poisoning, effects of *garavisha* and morbid *grahani roga*. *Svarna bhasma* is infact *pathyakara* (wholesome).

Apakva Svarna Dosha

बलं च वीर्यं हरते नराणां रोगव्रजं कोपयतीव काये।
असौख्यकारं च सदैव हेमापक्वं सदोषं मरणं करोति।। 19।।

The *svarna* having blemishes and which is *apakva* (which is

not properly converted into *bhasma*) depletes the strength and *ojas* (vitality of the man). Also it causes many diseases and brings about unease in the body. Ultimately such *svarna* may cause death.

Svarna Druti

मण्डूकास्थिवसाटङ्कहयलालेन्द्रगोपकैः।
प्रतिवापेन कनकं सुचिरं तिष्ठति द्रुतम्।। 20।।
चूर्णं सुरेन्द्रगोपानां देवदालीफलद्रवैः।
भावितं सदृशं हेम करोति जलवद्द्रुतम्।। 21।।

The bones and fat of frog, *tankana*, saliva of horse and insect called *indragopa* are takan in equal quantity and ground. Gold is melted in a crucible and the above mixture is put into the melted gold. By this the gold will remain in the liquid form alone, for long time.

The insect called *indragopa* is given the *bhavana* of juice of *devadi* fruit and with this if *prativapa* (putting into) is given to melted gold, it remains in the liquid form like water.

RAJATA
(Silver)

Varieties of Rajata

सहजं खनिसञ्जातं कृत्रिमं त्रिविधं मतम्।
रजतं पूर्वपूर्वं हि स्वगुणैरुत्तरोत्तरम्।। 22।।
कैलासाद्यद्रिसम्भूतं सहजं रजतं भवेत्।
तत्स्पृष्टं हि सकृद्व्याधिनाशनं देहिनां भवेत्।। 23।।
हिमालयाद्रिकूटेषु यद्रूप्यं जायते हि तत्।
खनिजं कथ्यते तज्ज्ञैः परमं हि रसायनम्।। 24।।
श्रीरामपादुकान्यस्तं वङ्गं यद्रूप्यतां गतम्।
तत्पादरूप्यमित्युक्तं कृत्रिमं सर्वरोगनुत्।। 25।।

Rajata is of three types viz. *sahaja*, *khanija* and *kritrima*. Amomg them *khanija rajata* is better than *kritrima* whereas *sahaja* variety is better than *khanija* type of silver owing to their qualities.

The silver, which is obtained from the mines of the Himalaya mountain is said to be *khanija roupya*. It is best *rasayana*.

The *vanga* was converted into *rajata* by the touch, (contact) of the *paduka* (foot wear) of Ramachandra. Such *rajata* is called *padarupa roupya* and it is nothing but *kritrima rajata*. It can also eradicate all the diseases.

Grahya Roupya

घनं स्वच्छं गुरु स्निग्धं दाहे छेदे सितं मृदु।
शङ्खाभं मसृणं स्फोटरहितं रजतं शुभम्।। 26।।

The silver which is massive, clear, heavy, slimmy, white like soft *shanka*, increased whiteness when heated or broken, devoid of nodules, is said to be superior.

दाहे रक्तं च पीतं च कृष्णं रूक्षं स्फुटं लघु।
स्थूलाङ्गं कर्कशाङ्गं च रजतं त्याज्यमष्टधा।। 27।।

The silver which has eight qualities such as blackness or yellowness or redness on burning, dryness, crackness, lightness, bulkiness and roughness is discarded.

Properties of Roupya

रूप्यं विपाकमधुरं तुवराम्लसारं शीतं सरं परमलेखनकं च रूप्यम्।
स्निग्धं च वातकफजिज्जठराग्निदीपि बल्यं परं स्थिरवयस्करणञ्च मेध्यम्।। 28।।
रौप्यं शीतं कषायाम्लं स्निग्धं वातहरं लघु।
रसायनविधानेन सर्वरोगापहारकम्।। 29।।

Roupya has *kashaya*, *amla rasa* and *madhura vipaka*. It posseses *shita virya*, and properties such as *saraka* (laxative) and *lekhana*. It is *snigdha* and alleviates *vata* and *kapha doshas*. *Roupya* is good

appetizer and promoter of strength, life span and intellectual power.

Roupya is *shita*, *kashaya madhura*, *snigdha*, *laghu* and *vatanashaka*. If it is consumed as a *rasayana*, it can prevent all kinds of diseases.

Effects of Impure and Unprocessed Roupya

आयु: शुक्रं बलं हन्ति तापविड्बन्धरोगकृत्।
अशुद्धं न मृतं तारं शुद्धं मार्यमतो बुधै:।। 30।।

The *roupya* which is not purified properly and which is not converted into *bhasma* appropriately, (if consumed) reduces the life span and destroys the strength as well as sexual power. Apart from this, it may cause many diseases like burning sensation all over the body, constipation etc. Hence, *roupya* should be subjected to proper *shodhana* and *marana* before use.

Shodhana of Roupya

नागेन टङ्कणेनैव वापितं शुद्धिमृच्छति।
तारं त्रिवारं निक्षिप्तं तैले ज्योतिष्मतीभवे।। 31।।
खर्परे भस्मचूर्णाभ्यां परित: पालिकां चरेत्।
तत्र रूप्यं विनिक्षिप्य समसीससमन्वितम्।। 32।।
जातसीसक्षयं यावद्धमेत्तावत् पुन: पुन:।
इत्थं संशोधितं रूप्यं योजनीयं रसादिषु।। 33।।

Roupya is melted in a crucible and *naga* and *tankana* in equal quantity are added to it. This liquid then is poured in *jyotistmati* oil. By repeating this process for three times the silver becomes *shuddha*.

A small rounded laddle (*palika*) is prepared with the help of the paste of ash and lime. Equal quantities of *roupya* and *naga* are put into this laddle.

Then the laddle is kept on fire and heated until the lead is burnt off completely. By this, *roupya* becomes *shudha*. This purified *roupya* can be used in various mercurical preparations.

Marana of Roupya

Method I

लकुचद्रवसूताभ्यां तारपत्रं प्रलेपयेत्।
ऊर्ध्वाधो गन्धकं दत्त्वा मूषामध्ये निरुध्य च।। 34।।
स्वेदयेद् बालुकायन्त्रे दिनमेकं दृढाग्निना।
स्वाङ्गशीतां च तां पिष्टिं साम्लतालेन मर्दिताम्।
पुटेद्द्वादशवाराणि भस्मीभवति रूप्यकम्।। 35।।

A paste prepard by rubbing the *bhasma* of *parada* in the juice of *lakucha* is applied over the leaves of *roupya*. After drying, these are kept in between the layers of powder of *gandhaka* in crucible, the mouth of which is closed. It is then kept in *valukayantra* and given intensive heat for eight *prahara* (24 hours). After self cool, the leaves are taken out, ground with equal quantity of purified *haratala* with lemon juice, kept in *sharava samputa* and given twelve *putas* to obtain the *bhasma* of *roupya*.

Method II

माक्षीकचूर्णलुङ्गाम्लमर्दितं पुटितं शनै:।
त्रिंशद्वारेण तत्तारं भस्मसाज्जायतेतराम्।। 36।।

The powder of the purified *svarna makshika* is rubbed in lemon juice. This paste is applied over the leaves of *roupya*. These leaves are then kept in a *sharava samputa* and given thirty *putas* to obtain the *bhasma* of *rajata*.

Method III

भाव्यं ताप्यं स्नुहीक्षीरैस्तारपत्राणि लेपयेत्।
मारयेत्पुटयोगेन निरुत्थं जायते ध्रुवम्।। 37।।

The paste prepared by grinding *svarna makshika* in *snuhi kshira* is applied over the leaves of *roupya* and heated in *puta*, keeping them in a *sharava samputa*, until a good *niruttha bhasma* is available.

Method IV

तारपत्रं चतुर्भागं भागैकं शुद्धतालकम्।
मर्द्यं जम्बीरजद्रावैस्तारपत्राणि लेपयेत्।। 38 ।।
शोधयेदन्धयन्त्रे च त्रिंशदुत्पलकैः पचेत्।
चतुर्दशपुटैरेवं निरुत्थं जायते ध्रुवम्।। 39 ।।

Four parts of *roupya*, which is made into thin leaves, and *haratala* rubbed in lemon juice is applied over them. These leaves then are confined to *andhamusha* (crucible) and kept in the midst of thirty *vanopala* (cowdung cakes) and *puta* is given. Such fourteen *putas* would yield *niruttha bhasma* of *roupya*.

Rajata Druti

सप्तधा नरमूत्रेण भावयेद् देवदालिकाम्।
तच्चूर्णवापमात्रेण द्रुतिः स्यात्स्वर्णतारयोः।। 40 ।।

The powder of *devadali panchanga* (or fruit) which has been given seven *bhavanas* of human urine is added into the liquified *roupya* as *prakshepa*. This keeps *roupya* (and gold) in liquid form.

Administration of Rajata

भस्मीभूतं रजतममलं तत्समौ व्योमभानू,
सर्वैस्तुल्यं त्रिकटुसवरं सारघाज्येन युक्तम्।
लीढं प्रातः क्षपयतितरां यक्ष्मपाण्डूदरार्शः,
श्वासं कासं नयनजरुजः पित्तरोगानशेषान्।। 41 ।।

Equal quantities of *rajata bhasma*, *abhraka bhasma*, and *tamra bhasma* are mixed with *trikatu* powder (in the quantity equal to the above mixture), and taken in suitable dosage in the morning with ghee and honey. This will help in eradicating the diseases like *rajayakshma, pandu, udara, arsha, shvasa, kasa* and *netraroga* and also all kinds of diseases caused by vitiated *pitta*.

TAMRA
(Copper)

म्लेच्छं नेपालकं चेति तयोर्नेपालकं वरम्।
नेपालादन्यखन्युत्थं म्लेच्छमित्यभिधीयते।। 42 ।।

Tamra is of two types, viz. *mlechcha* and *nepalaka* (*nepali*). Among them *nepali* is superior. The one which is available in the mines situated outside the *Nepala desha* is called *mlechcha tamra*.

Varieties of Tamra

सितकृष्णारुणच्छायमतिवामि कठोरकम्।
क्षालितं च पुनः कृष्णमेतन्म्लेच्छकताम्रकम्।। 43 ।।
सुस्निग्धं मृदुलं शोणं घनाघातक्षमं गुरु।
निर्विकारं गुणश्रेष्ठं ताम्रं नेपालमुच्यते।। 44 ।।
पाण्डुरं कृष्णशोणं च लघुस्फुटनसंयुतम्।
रूक्षाङ्गं सदलं ताम्रं नेष्यते रसकर्मणि।। 45 ।।

The *tamra* which has the colours like white, black, and reddish; which cause severe vomiting if the foodstuffs kept in vessel made of such copper is consumed; which is rough and turns black even after washing repeatedly, is said to be *mlechcha tarma*.

The *tamra* which is very slimmy, soft and having red colour; which can resist severe hammening; heavy and which does not turn into black on washing; is said to be *nepali tamra*. This kind of *tamra* is superior.

The one which is whitish or blackish red in colour; light, brittle, rough and layered, is usless in various mercurical processes.

Properties of Tamra

ताम्रं तिक्तकषायञ्च मधुरं पाकेऽथ वीर्योष्णकं,
साम्लं पित्तकफापहं जठररुक्कुष्ठामजन्त्वन्तकृत्।
ऊर्ध्वाधः परिशोधनं विषयकृत् स्थौल्यापहंक्षुत्कर-
न्दुर्नामक्षयपाण्डुरोगशमनं नेत्र्यं परं लेखनम्।। 46 ।।

Tamra is *tikta*, and *kashaya* in *rasa*, *madhura* in *vipaka* and *ushna* in *virya*. It is slightly sour and alleviates *kapha* and *pitta*. It can eradicate *udara, kustha, amavikara, krimi. Tamra* (in excessive quantity) causes vomiting and purges. It is useful in disorders caused by poisoning, obesity, and disorders of liver. It improves the appetite and can destroy the diseases like *arsha, kshaya, pandu* etc. It is good for eyes and also *lekhaniya*.

Properties of Improper Tamra

अशुद्धं ताम्रमायुर्घ्नं कान्तिवीर्यबलापहम् ।
वान्तिमूर्च्छाभ्रमोत्क्लेदं कुष्ठं शूलं करोति तत् ।। 47 ।।
उत्क्लेदभेदभ्रमदाहमोहास्ताम्रस्य दोषाः खलु दुर्धरास्ते ।
विशोधनात्तद्विगतस्वदोषं सुधासमं स्याद्रसवीर्यपाके ।। 48 ।।

The *tamra* which is *ashuddha* depletes the complexion, life span, and strength. It causes *vamana, murccha, bhrama, utklesha, kustha* and *shula*.

Utklesha, atisara, bhrama, daha and *moha* are the dreadful effects arise out of impure *tamra*. However, if *tamra* is subjected to proper *shodhana*, all such toxic properties will be neutralized and it becomes like *amrita* in its *rasa, virya* and *vipaka*.

Shodhana of Tamra

Method I

ताम्रं क्षाराम्लसंयुक्तं द्रावितं दत्तगैरिकम् ।
निक्षिप्तं महिषीतक्रे छगणे सप्तवारकम् ।
पञ्चदोषविनिर्मुक्तं भस्मयोग्यं हि जायते ।। 49 ।।

Tamra is ground in *kshara* (like *svarjikakshara, yavakshara, tankana* etc.,) and *amla dravyas* (like *kanji*, lemon juice etc.,) and by keeping in crucible, melted on intense fire. Then it is mixed with *gairika* and poured while it is in liquid form alone in butter milk and dung of buffallo for seven times. This gets rid of all the five dreadful blemishes present in the *tamra* and it becomes fit for the subsequent process of *marana*.

Method II

ताम्रनिर्मलपत्राणि लिप्त्वा निम्ब्वम्बुसिन्धुना ।
ध्मात्वा सौवीरकक्षेपाद्विशुद्ध्यत्यष्टवारतः ।। 50 ।।

The lemon juice with *saindhava lavana* is ground and the resultant paste is smeared over the clean leaves of *tamra*. Then they are cooked in intensive fire and immersed for eight times in *souviraka* to make *tamra shuddha*.

Method III

निम्ब्वम्बुपटुलिप्तानि तापितान्यष्टवारकम् ।
विशुद्ध्यन्त्यर्कपत्राणि निर्गुण्डीरसमज्जनात् ।। 51 ।।
गोमूत्रेण पचेद् यामं ताम्रपत्रं दृढाग्निना ।
शुद्ध्यते नात्र सन्देहो मारणं चाप्यथोच्यते ।। 52 ।।

The paste prepared by rubbing *saindhava lavana* in lemon juice is smeared upon the *tamra* leaves and they are heated in intensive fire and immersed in the juice of *nirgundi* for eight times for *shodhana* of *tamra*.

The leaves of *tamra* if boiled in cow's urine for three hours in intensive fire, it becomes *shuddha* without any doubt.

The *marana* of *tamra* will be described next.

Marana of Tamra

Method I

जम्बीररससम्पिष्टरसगन्धकलेपितम् ।
शुल्बपत्रं शरावस्थं त्रिपुटैर्याति पञ्चताम् ।। 53 ।।

Shodhana parada and *gandhaka* are rubbed in the juice of *jambira* and the paste is applied over the leaves of *tamra*. These

leaves then kept in *sharava samputa* and subjected to three *putas* to obtain the *bhasma* of *tamra*.

Method II

अथवा मारितं ताम्रमम्लेनैकेन मर्दितम्।
तद्गोलं सूरणस्यान्ते रुद्ध्वा सर्वत्र लेपयेत्।। 54।।
शुष्कं गजपुटे पच्यात् सर्वदोषहरं भवेत्।
वान्तिं भ्रान्तिं विरेकञ्च न करोति कदाचन।। 55।।

The *bhasma* of *tamra* is ground with *amla kanji* and the ball prepared out of it, is kept inside the tuber of *surana*, closed and covered with mud layer.

It is then dried, kept in the *gajaputa* and baked. Thus, obtained *bhasma* alleviates all the *doshas* and removes the blemishes such as vomiting, vertigo, and diarrhoea.

Method III

ताम्रपत्राणि सूक्ष्माणि गोमूत्रे पञ्चयामकम्।
क्षिप्त्वा रसेन भाण्डे तद्द्विगुणं देहि गन्धकम्।। 56।।
अम्लपर्णीं प्रपिष्याथ ह्यभितो देहि ताम्रकम्।
सम्यङ्निरुध्य भाण्डे तमग्निं ज्वालय यामकम्।
भस्मीभवति ताम्रं तद्यथेष्टं विनियोजयेत्।। 57।।

The thin leaves of *tamra* are boiled in cow's urine (or kept soaked in it). *Parada*, equal to the quantity of *tamra*, and *gandhaka*, its double the quantity, are taken and *kajjali* is prepared. The *kalka* (paste) prepared with *amalparni* (*changeri*) is applied over the above *tamra* leaves and dried. These leaves then, kept in a vessel in between (around) the *kajjali* prepared as above and the mouth of the vessel is covered. This vessel then in kept over the stove and heated in strong fire for three hours. This yields the *bhasma* of *tamra* which can be used where ever needed.

Method IV

सूताद् द्विगुणितं ताम्रपत्रं कन्यारसैः प्लुतम्।
पिष्ट्वा तुल्येन बलिना भाण्डमध्ये विनिक्षिपेत्।। 58।।
छन्नं शरावकेणैतत्तदूर्ध्वं लवणं त्यजेत्।
मुखे शरावकं दत्त्वा वह्निं यामचतुष्टयम्।। 59।।
अवचूर्ण्यैव तच्छुल्बं वल्लमात्रं प्रयोजयेत्।
पिप्पलीमधुना सार्धं सर्वरोगेषु योजयेत्।। 60।।

The leaves of *shuddha tamra*, *parada*-double the quantity of *tamra* and *gandhaka* equal to that of *tamra* are taken together and ground in the juice of *kumari*. A ball is prepared out of it and taken in a vessel and a *sharava* is placed over the ball. The remaining part of the vessel is filled with *saindhava lavana* and the mouth of the vessel is closed with another *sharava*. It is then heated over the intensive fire for twelve hours. After self cooling the material is taken out and fine powder is made. It is taken in the dosage of one *valla* (1 to 1.5 *ratti* or 125 to 185 mg.) along with the powder of *pippali* and honey to eradicate all diseases.

Properties of the Bhasma

श्वासं कासं क्षयं पाण्डुमग्निमान्द्यमरोचकम्।
गुल्मप्लीहयकृन्मूर्च्छाशूलपक्त्यर्थमुत्तमम्।। 61।।
दोषत्रयसमुद्भूतानामान्याञ्जयति ध्रुवम्।
रोगानुपानसहितं जयेद्धातुगतं ज्वरम्।
रसे रसायने ताम्रं योजयेद् युक्तमात्रया।। 62।।

This *bhasma* of *tamra* eradicates the diseases like *shvasa*, *kasa*, *kshaya*, *pandu*, *agnimandya*, *aruchi*, *gulma*, disorders of *yakrit*, *pliha*, *murcha*, *shula*, *pakti-shula* and also the diseases arising out of vitiation of all the three *doshas*. It can cure all the diseases and also *dhatugata jvara*, if consumed with various suitable *anupana*. This *tamra bhasma* can also be used in proper dosage in *rasa karma* as well as *rasayana karma*.

Somanathi Tamra Bhasma

शुल्बतुल्येन सूतेन बलिना तत्समेन च।
तदर्धांशेन तालेन शिलया च तदर्धया।। 63।।
विधाय कज्जलीं श्लक्ष्णां भिन्नकज्जलसन्निभाम्।
यन्त्राध्यायविनिर्दिष्टगर्भयन्त्रोदरान्तरे।। 64।।
कज्जलीं ताम्रपत्राणि पर्यायेण विनिक्षिपेत्।
प्रपचेद् यामपर्यन्तं स्वाङ्गशीतं विचूर्णयेत्।। 65।।
तत्तद्रोगहरानुपानसहितं ताम्रं द्विवल्लोन्मितं,
संलीढं परिणामशूलमुदरं शूलञ्च पाण्डुज्वरम्।
गुल्मप्लीहयकृत्क्षयाग्निसदनं मेहं च मूलामयं,
दुष्टां च ग्रहणीं हरेद्ध्रुवमिदं श्रीसोमनाथाभिधम्।। 66।।

One part each of *shuddha tamra* and *shuddha parada,* two parts of *suddha gandhaka,* one part of *suddha haratala* and half part of *suddha manahshila* are taken. *Parada* and *gandhaka* are ground together, to prepare Kajjali. Then *haratala* and *manahshila* are added and well ground. This *kajjali* is then spread in *garbha yantra* (which is described in the chapter of *Yantra*) and *tamra patras* are placed upon the *kajjali. Kajjali* is spread over again upon the leaves. In this way all the leaves of *tamra* are kept in between the *kajjali,* placed one after another. Then intensive fire is given for three hours. When self cooled, taken out and powdered well. The resultant, *bhasma* is called *somanathi tarma bhasma.* This *bhasma* is taken with different *anupana*, relevent to the diseases, in the dosage of two *valla* (250-500 mg.), which cures *parinama shula*, *udara shula*, *pandu*, *shvasa*, *gulma*, *pliharoga*, diseases of *yakrit, kshaya, agnimandya, arsha, grahani* etc., without doubt.

LOHA
(Iron)

Varieties of Loha

मुण्डं तीक्ष्णञ्च कान्तञ्च त्रिप्रकारमयः स्मृतम्।
मृदु कुण्ठं कडारञ्च त्रिविधं मुण्डमुच्यये।। 67।।

खरं सारञ्च हृन्नालं तारावट्टञ्च वाजिरम्।
काललोहाभिधानञ्च षड्विधं तीक्ष्णमुच्यते।। 68।।
भ्रामकञ्चुम्बकञ्चैव कर्षकं द्रावकं तथा।
एवञ्चतुर्विधं कान्तं रोमकान्तञ्च पञ्चमम्।। 69।।

The *loha* is of three types, viz. *munda loha, tikshna loha* and *kanta loha.* There are further three varieties in *munda loha,* i.e. *mridu, kuntha* and *kadara munda.* There are six varieties in *tikshna loha*, such as *khara tikshna, sara tikshina, hrinnala tikshna, taravatta tikshna, vajira tikshna* and *kala loha tikshna. Kanta loha* too is of five types, viz. *bhramaka kanta, chumbaka kanta, karshaka kanta, dravaka kanta* and *romakanta kanta.*

Varieties of Munda Loha

मृदु कुण्ठं कडारं च त्रिविधं मुण्डमुच्यते।
दुतद्रावमविस्फोटं चिक्कणं मृदु तच्छुभम्।। 70।।
हतं यत्प्रसरेद्दुःखात् तत्कुण्ठं मध्यमं स्मृतम्।
यद्धतं भज्यते भङ्गे कृष्णं स्यात्तत्कडारकम्।। 71।।

The *munda loha* is of these types, i.e. *mridu, kuntha* and *kadara munda.* That which melts quickly on heating and does not break on beating and which is soft and *chikkana* (slimmy) is said to be *mridu munda loha.* It is auspicious and good. The one which spreads with difficulty on beating is *kuntha munda loha.* This type of *loha* is medium in qualitative grade. The last *kadara munda loha* if beaten, breaks and the broken surface is black in colour. This *loha* is inferior.

Properties of Munda Loha

मुण्डं परं मृदुलकं कफवातशूलमूलाममेहगदकामलपाण्डुहारि।
गुल्मामवातजठरार्तिहरं प्रदीपि शोफापहं रुधिरकृत्खलु कोष्ठशोधि।। 72।।

The *munda loha* which is very soft and useful in alleviating *kapha* and *vata shula, arsha, amadosha, prameha, kamala, pandu, gulma, amavata, udararoga* and *shotha.* It improves the appetite, enhances the blood and responsible for *koshtha shuddhi.*

Ashuddha Sevana Dosha

अशुद्धलोहं न हितं निषेवणादायुर्बलं कान्तिविनाशि निश्चितम्।
हृदि प्रपीडां तनुते ह्यपाटवं रुजं करोत्येव विशोद्ध्य मारयेत्।। 73।।

Consumption of *bhasma* prepared out of *ashuddha* (impure) *loha* is unwholesome. It destroys the strength, complexion and reduces the life span. It causes *hridaya shula* and *sharira shaithilya* leading to many diseases. Hence, the *bhasma* of the *loha* is prepared only after *shodhana.*

Varieties of Tikshna Loha

खरं सारश्च हृन्नालं तारावट्टश्च वाजिरम्।
काललोहाभिधानश्च षट्विधं तीक्ष्णमुच्यते।। 74।।

There are six kinds of *tikshna loha.* They are *khara, sara, hrinnala, vajra,* and *kala loha.*

Properties of Tikshna Loha

परुषं पोगरोन्मुक्तं भङ्गे पारदवच्छवि।
नमने भङ्गुरं यत्तत्खरलोहमुदाहृतम्।। 75।।
वेगभङ्गुरधारं यत्सारलोहं तदीरितम्।
पोगराभासकं पाण्डुभूमिजं सारमुच्यते।। 76।।
कृष्णपाण्डुवपुश्चञ्चुबीजतुल्योरुपोगरम्।
छेदने चातिपरुषं हृन्नालमिति कथ्यते।। 77।।
अङ्गं छाया च वङ्गश्च पोगरस्याभिधात्रयम्।
चिकुरं भङ्गुरं लोहात्पोगरं तत्परं स्मृतम्।। 78।।
पोगरैर्वज्रसङ्काशैः सूक्ष्मरेखैश्च सान्द्रकैः।
निचितं श्यामलाङ्गश्च वाजीरं तत्प्रकीर्यते।। 79।।
नीलकृष्णप्रभं सान्द्रं मसृणं गुरु भासुरम्।
लोहाघातेऽप्यभङ्गात्मधारं कालायसं मतम्।
खरलोहात्परं सर्वमेकैकस्माच्छतोत्तरम्।। 80।।

The first one *khara tikshna loha* is very hard and devoid of *pogara.* The broken sunface is lustrous like mercury. It breaks when bent.

On hitting hard, the edge of the *sara tikshna loha* mutilates. There is a semblance of *pogara* in it. This *sara tikshna loha* is found in whitish yellow earth.

The *hrinnala tikshna loha* is dull white in colour and there is presence of *pogara*, resembling to castor seeds. This kind of *loha* is extremely hard and very difficult of break.

Anga, *chaya* and *vanga* are the synonyms of *pogara.* When the iron is broken, a brittle and hairy lines are seen, which are called *pogara.*

Vajra tikshna loha is highly solid (massive) and extremely hard like *vajra* (diamond). It possesses minute lines and *pogaras. Vajra tikshna loha* is light black in colour.

The iron which is bluish black in colour, massive, slimmy (smooth), heavy and lustrous and the edges of which are not mutilated even by the impact of beating is called *kala loha.*

Among all the six types, i.e. *khara, sara, hrinnala, taravatta, vajra* and *kala loha*, each one is hundred times superior than the previous one (like *sara* is hundred times superior than *khara, hrinnala* is hundred times superior than *sara* and so on).

Properties of Khara Loha

रूक्षं स्यात्खरलोहकं समधुरं पाकेऽथ वीर्ये हिमं,
तिक्तोष्णं कफपित्तकुष्ठजठरप्लीहामपाण्ड्वर्तिनुत्।
सद्यः शूलयकृद्गदक्षयजरामेहामवातापहं,
दीप्तश्चातिरसायनं बलकरं दुर्नामदाहापहम्।। 81।।

Khara tikshna loha is *ruksha*, has *madhura vipaka*, *shita virya*, *tikta rasa* and hot to touch. It alleviates *kapha* and *pitta* and eradicates *udara*, *pliharoga*, *amadosha*, *pandu*, *shula*, *yakrit vikara*, *kshaya*, *dourbalya*, *prameha*, *amavata*, *arsha* and *daha*. Apart from this, it is very good *rasayana* and nutritious.

Varieties of Kanta Loha

भ्रामकं चुम्बकश्चैव कर्षकं द्रावकं तथा।
एवं चतुर्विधं कान्तं रोमकान्तश्च पञ्चमम् ।। 82 ।।

Kanta loha is of five kinds, viz., *bhramaka, chumbaka, karshaka, dravaka* and *romakanta.*

एकद्वित्रिचतुष्पञ्चसर्वतोमुखमेव तत्।
पीतं कृष्णं तथा रक्तं त्रिवर्णं स्यात्पृथक् पृथक् ।। 83 ।।
क्रमेण देवतास्तत्र ब्रह्मविष्णुमहेश्वराः।
स्पर्शवेधि भवेत्पीतं कृष्णं श्रेष्ठं रसायने ।। 84 ।।
रक्तवर्णं तथा चापि रसबन्धे प्रशस्यते।
भ्रामकं तु कनिष्ठं स्याच्चुम्बकं मध्यमं तथा।
उत्तमं कर्षकश्चैव द्रावकश्चोत्तमोत्तमम् ।। 85 ।।

There are once again varieties in each of the above stated *kantaloha* viz., *ekamukha, dvimuka, trimukha, chaturmukha, panchamukha* and *sarvatomukha.* According to colour, *kantaloha* is of three types viz., *pita* (yellow), *krishna* (black) and *rakta* (red). It is said that in each of these varieties the gods Brahma, Vishnu and Mahesvara are situated respectively. Among these varieties of *kantaloha*, the *pitakanta* is *sparashavedhi* (by mere touch converts anything into gold), the *krishnakanta* is best *rasayana* and *raktakanta loha* is useful in making *parada* inert (*baddha*).

Among the various types of *kantalohas*, the *bhramaka* is said to be inferior, *chumbaka* is midium and *karshaka* is supeior. The *dravaka kantaloha* is said to be best among all.

Properties of Various Kantalohas

भ्रामयेल्लोहजातं यत्तत्कान्तं भ्रामकं मतम्।
चुम्बयेच्चुम्बकं कान्तं कर्षयेत्कर्षकं तथा ।। 86 ।।
साक्षाद् यद्द्रावयेल्लोहं तत्कान्तं द्रावकं मतम्।
तद्रोमकान्तं स्फुटिताद्यतो रोमोद्गमो भवेत् ।। 87 ।।
चतुष्पञ्चमुखं श्रेष्ठमुत्तमं सर्वतोमुखम्।
भ्रामकं चुम्बकं चैव व्याधिनाशे प्रशस्यते ।। 88 ।।

रसे रसायने चैव कर्षकं द्रावकं हितम्।
मदोन्मत्तगजः सूतः कान्तमङ्कुशमुच्यते ।। 89 ।।
क्षेत्रं ज्ञात्वा गृहीतव्यं तत्प्रयत्नेन धीमता।
मारुताऽऽतपविक्षिप्तं वर्जयेन्नात्र संशयः ।। 90 ।।

When small pieces of iron are brought near the *kantaloha*, and if these pieces tremble a little and rivolves around, such a *kantaloha* is *bhramaka kantaloha.*

The iron pieces are attracted and get attatched when brought near the *chumbaka kantaloha.*

The *karshaka kantaloha* attract the iron pieces towards it.

The *dravaka kantaloha* can attracts iron pieces from far distance (or it can repell the pieces).

If the *romakanta kantaloha* is brought near the pieces, they would stand erect like hairs.

The *kantaloha* which has four or five faces (planes) is said to be best. However, the one which has the faces (planes) at all the direction is extremely good.

Among the above varieties of *kantalohas*, the *bhramaka* and *chumbaka* are capable of eradicating the diseases, where as *karshaka* and *dravaka* types are said to be useful in *rasa karma* and *rasayana karma.*

Kantaloha is like *ankusha* (hook) for the *parada* which is like arrogant (inebriated) elephant.

An intelligent physician should always collect the *kantaloha* selecting a proper *kshetra* (area or place). It is doubtless that the *kantaloha* which is vitiated by polluted air and sunrays is discarded.

Features of Superior Kantaloha

पात्रे यस्य प्रसरति जले तैलबिन्दुर्न लिप्तम्,
गन्धं हिङ्गु त्यजति च तथा तिक्ततां निम्बकल्कः।

पाके दुग्धं भवति शिखराकारकं नैति भूमौ,
कान्तं लौहं तदिदमुदितं लक्षणोक्तं च नान्यत्।। 91।।

If a drop of oil is put on the water taken in the vessel made of *kantaloha*, the oil does not spread. The smell of *hingu* (asafoetida) vanishes, if it is smeared inside the vessel of *kantaloha*. Similarly, the *kalka* (bolus) of *nimba* loses its bitterness after sometimes. The milk when heated in the *kantaloha* vessel, comes up and towres over the brim of the vessel, but does not spill over the vessel.

The *kantaloha* possessing above features, is said to be the best and other types are said to be discardable.

Properties of Kantaloha

कान्तायोऽतिरसायनोत्तरतरं स्वस्थे चिरायु:प्रदं,
स्निग्धं मेहहरं त्रिदोषशमनं शूलाऽऽममूलापहम्।
गुल्मप्लीहयकृत्क्षयामयहरं पाण्डूदरव्याधिनु-
त्तिक्तोष्णं हिमवीर्यकं किमपरं योगेन सर्वार्तिनुत्।। 92।।

Kantaloha is said to be best *rasayana*, it enhances the life span, if consumed, by a heathy person. It is *snigdha* and alleviates all the *doshas*. *Kantaloha* can eradicate the diseases like *prameha, amadosha, arsha, gulma, yakrit, pliha, pandu, udara* etc. It is *tikta* in taste, hot (to touch) and has *shita virya* (or both *shita, ushma*). If *kantaloha* (*bhasma*) is taken along with proper *anupana*, it can cure all kinds of diseases.

Loha : Shodhana-Marana

सम्यगौषधकल्पानां लोहकल्प: प्रशस्यते।
तस्मात्सर्वप्रयत्नेन शुद्धं लोहञ्च मारयेत्।। 93।।
नाय: पचेत्पञ्चपलादर्वागूर्ध्वं त्रयोदशात्।
आदौ मन्त्रस्तत: कर्म कर्तव्यं मन्त्र उच्यते।। 94।।
"ॐ अमृतोद्भवाय स्वाहा:" अनेन लोहमारणम्।। 95।।
लक्षोत्तरगुणं सर्वं लोहं स्यादुत्तरोत्तरम्।
कान्तं कोटिगुणं तत्र तदप्येवं गुणोत्तरम्।। 96।।

From among all the medicinal preparations, *loha kalpa* (iron preparations) are said to be excellent.

Hence, superior variety of *loha* is obtained and subjected to *shodhana* with effort and then subjected to *marana*. If *loha* is to be taken for the process of *marana*, it should not be less then five *pala* (twenty *tola* or 200 gm.) or more than sixteen *pala* (64 *tola* or 704 gms.).

A *mantra* '*Om amritodbhavaya svaha*' is chanted before commencing the process like *marana* etc.

Tikshna loha is superior to *mundaloha* and *kantaloha* is superior to *tikshana loha*. However, the *kantaloha* is crore times superior to all other types of *loha* varieties.

Shodhana of All Types of Loha

Method I

शशक्षतजसंलिप्तं त्रिवारं परितापितम्।
मुण्डादिसकलं लोहं सर्वदोषान्विमुञ्चति।। 97।।

Small pieces or thin leaves of any variety of *loha* is prepared and the blood of rabbit is smeared. Then these are heated in intense fire. The whole process is repeated for three times by which all types of *lohas* become pure, leaving back all the impurities.

Method II

क्वाथ्यमष्टगुणे तोये त्रिफलाषोडशं पलम्।
तत्क्वाथे पादशेषे तु लोहस्य पलपञ्चकम्।। 98।।
कृत्वा पत्राणि तप्तानि सप्तवारं निषेचयेत्।
एवं प्रलीयते धातुर्गिरिजो लोहसम्भव:।। 99।।

Kvatha (decoction) is prepared by bioling sixteen *pala* (64 *tola*) of *triphala* powder in eight times of water and by reducing it to quarter. Then leaves are made out of five *pala* (twenty *tola*) of *loha* and after heating them they are all immersed in the above

triphala quatha. The process is repeated for seven times. This process removes all the *khanija doshas* (impurities obtained in the mines).

Method III

सामुद्रलवणोपेतं तप्तं निर्वापितं खलु।
त्रिफलाक्वथिते नूनं गिरिदोषमयस्त्यजेत्।। 100।।

A concentrated (thick) solution of *samudra lavana* (common salt) is prepared and leaves of *loha* are immersed and taken out. They are then heated strongly and immersed for seven times in *triphala quatha*. This would remove all the *khanija doshas* of *loha*.

Method IV

चिञ्चापत्रजलक्काथादयो दोषमुदस्यति।
यद्वा फलत्रयोपेतं गोमूत्रे क्रथितं खलु।। 101।।

Either the decoction or juice of *chincha* or decoction of *triphala*, which is prepared by boiling *triphala* in eight times of cow's urine and reduced to quarter, is taken and red hot leaves of *loha* are immersed to remove the *doshas*.

Marana of Loha

Method I

रेतितं घृतसंयुक्तं क्षिप्त्वाऽयःखर्परे पचेत्।
चालयेल्लौहदण्डेन यावत्क्षिप्तं तृणं दहेत्।। 102।।
पिष्ट्वा पिष्ट्वा पचेदेवं पञ्चवारमतः परम्।
धात्रीफलरसैर्यद्वा त्रिफलाक्रथितोदकैः।
पुटेल्लौहं चतुर्वारं भवेद्वारितरं खलु।। 103।।

The powdered and purified *loha* is taken along with the equal quantity of cow's ghee in a vessel and cooked in strong fire. The mixture is stirred well during heating. It is heated so strongly that, if a dry grass is put on this mixture, it should burn in-

stantly. When all the ghee is burnt off, the mixture is taken out after self cooling and triturated well. Once again, it is heated with equal quantity of ghee and triturated. This process is then repeated for five times. Then the powder is triturated in the juice or in the decoction of *amalaki* or *triphala*. *Chakrika* (flakes) are prepared and subjected to *gajaputa*. Four such *putas* yield a good and *varitara bhasma* of *loha*.

Method II

स्नेहाक्तं लोहरजो मूत्रे स्वरसेऽपि रात्रिधात्रीणाम्।
पृथगेवं सप्तकृत्वो भर्जितमखिलामये योज्यम्।। 104।।

Equal quantity of ghee is mixed with powdered *loha* and *mardana* is done. Then, it is mixed with cow's urine, juice of *haridra* and *amalaki* and boiled for seven times and subjected to *putas* for seven times. This *bhasma* which is available, can be used in all the diseases.

Method III (Tikshana Loha)

तीक्ष्णलौहस्य पत्राणि निर्दलानि दृढेऽनले।
ध्मात्वा क्षिपेज्जले सद्यः पाषाणोलूखलोदरे।। 105।।
खण्डयेद् गाढनिर्घातैः स्थूलया लोहपारया।
तन्मध्ये स्थूलखण्डानि रुद्ध्वा मल्लद्वयान्तरे।। 106।।
ध्मात्वा क्षिप्त्वा जले सम्यक् पूर्ववत्कण्डयेत् खलु।
तच्चूर्णं सूतगन्धाभ्यां पुटेद्विंशतिवारकम्।। 107।।
पुटे पुटे विधातव्यं पेषणं दृढवत्तरम्।
एवं भस्मीकृतं लौहं तत्तद्रोगेषु योजयेत्।। 108।।

Thin leaves of *tikshna loha* are heated in the intensive fire, then they are dipped red hot into the water and taken out immediately and subjected to vigorous pounding in the iron mortar with the help of an iron pestle. From this powdered *loha*, the bigger pieces are picked up and heated red hot again in a *sharava* and immersed in the water and removed instantly to pound as above in the iron mortar. The powder thus prepared is mixed

with equal quantities of purified *parada* and purified *gandhaka*, triturated well, kept in *sharava samputa* and subjected to *gajaputa*. After self cooling, once again equal quantities of *parada* and *gandhaka* are added, triturated and *puta* is given. Thus, intotal twenty *putas* are given. After every *puta*, the resultant material is well triturated. Ultimately *bhasma* thus obtained, is used in various diseases with suitable *anupanas*.

Method IV

हिङ्गुलस्य पलान् पञ्च नारीस्तन्येन पेषयेत्।
तेन लोहस्य पत्राणि लेपयेत् पलपञ्चकम्।। 109।।
रुद्ध्वा गजपुटैः पच्यात् कषायैस्त्रैफलैः पुनः।
जम्बीरैरारनालैश्च विंशत्यंशेन हिङ्गुलम्।। 110।।
पिष्ट्वा रुद्ध्वा पचेल्लोहं तद्द्रवैः पाचयेत्पुनः।
चत्वारिंशत् पुटैरेवं कान्तं तीक्ष्णं च मुण्डकम्।
म्रियते नात्र सन्देहो दत्त्वा दत्त्वैव हिङ्गुलम्।। 111।।

Five *pala* (twenty *tola* or 200 gms.) of *hingula* is ground in breast milk and smeared over the leaves of five *palas* of purified *loha*. These leaves then are kept in *sharava samputa* and heated in the *gajaputa*. When selfcold, removed from the *puta*, mixed with one *tola* (11 gms.) of *hingula* and triturated in decoction of *triphala*, lime juice and *kanji* (or any one of them), *chakrikas* are made, and subjected to *gajaputa* again. In this way forty *putas* are given by which *kantaloha*, *tikshna loha* and *mundaloha* are converted into *bhasma*, without any doubt.

Method V

अथ पूर्वोदितं तीक्ष्णं वसुभल्लकवासयोः।
पुटितं पत्रतोयेन त्रिंशद्वाराणि यत्नतः।
शोणितं जायते भस्म कृतसिन्दूरविभ्रमम्।। 112।।

As said earlier (in the III method), the *tikshana loha* is powdered, rubbed in the juice of *shveta punarnava* and leaves of *vasa* and subjected to thirty *gajaputa*, which would yield red coloured *bhasma* looking like *sindura*.

Method VI

यद्वा तीक्ष्णदलोद्भूतं रजश्च त्रिफलाजलैः।
पिष्ट्वा दत्त्वौदनं किञ्चिच्चक्रिकां प्रविधाय च।। 113।।
शोषयित्वाऽतियत्नेन प्रपचेत् पञ्चभिः पुटैः।
रक्तवर्णं हि तद्भस्म योजनीयं यथातथम्।। 114।।

The *tikshna loha* is powdered as mentioned earlier (in the IIIrd method) and rubbed in *triphala quatha*. It is mixed in quarter quantity of *odana* (cooked rice), rubbed, *chakrikas* are prepared, dried, kept in *sharava samputa* and given *gajaputa*. Such five *putas* yield *bhasma* of red colour which can be used whenever needed.

Method VII

मत्स्याक्षीगन्धवाह्लीकैर्लकुचद्रवपेषितैः।
विलिप्य सकलं लोहं मत्स्याक्षीकल्कलेपितम्।। 115।।
भस्त्राभ्यां सुदृढं ध्मात्वा त्रिशूलीनिर्गमावधि।
अथोद्धृत्य क्षिपेत्क्वाथे त्रिफलागोजलात्मके।। 116।।
तस्मादाहृत्य सन्ताड्य मृतमादाय लोहकम्।
पुनश्च पूर्ववद् ध्मात्वा मारयेदखिलायसम्।। 117।।
खण्डयित्वा ततो गन्धगुडत्रिफलया सह।
पुटेत् त्रिशतिवाराणि निरुत्थं भस्म जायते।। 118।।

The drugs like *matsyakshi*, *gandhaka* and *hingu* are ground in the juice of *lakucha* and the paste is prepared and smeared over the leaves of *loha*. Then they are kept inside the *kalka* of *matsyakshi* (or the *kalka* is smeared over them) and placed in the *musha*.

This crucible is kept in the furnace which is attatched with two bellow pipes and blowed intensively until the *trishuli nirgamana* is observed. (*In trishuli nirgamana*, appearances of specific coloured flames, i.e. red coloured flames first, then yellow coloured and lastly blue flames are seen). After taking out the

leaves they are dipped into *triphala quatha* and cow's urine, and powdered well in the *khalva*. Once again this powder is ground in the juice of *matsyakshi* and other above said drugs, heated into *kosthi*, immersed in the *triphala quatha* and cow's urine and powdered finely. This chain of processes is continued until the entire amount of *loha* is completely turned into fine powder. To this powder then, equal quantity of *gandhaka*, jaggary and *triphala* powder are added, ground in *triphala quatha, chakrikas* are prepared and given thirty *gajaputa* to obtain the *niruttha bhasma*.

Method VIII

समगन्धमयश्चूर्णं कुमारीवारिभावितम्।
पुटीकृतं कियत्कालमवश्यं म्रियते ह्ययः।। 119।।

The powdered *loha* and *gandhaka* are added and *bhavana* of juice of *kumari* is given and subjected to few (eight to ten *gajaputa*, which yields the *loha bhasma*.

Method IX

जम्बीररससंयुक्ते दरदे तप्तमायसम्।
बहुवारं विनिक्षिप्तं म्रियते नात्र संशयः।। 120।।

A paste is prepared by rubbing *hingula* in the lemon juice and this paste is applied over the leaves of *loha*. If these leaves are heated and immersed in the lemon juice repeatedly, the *loha bhasma* can be obtained without doubt.

Method X

गोमूत्रैस्त्रिफला क्काथ्या तत्कषायेण भावयेत्।
त्रिसप्ताहं प्रयत्नेन दिनैकं मर्दयेत् पुनः।। 121।।
रुद्ध्वा गजपुटे पच्यात् दिनं क्काथेन मर्दयेत्।
दिवा मर्द्यं पुटेद्रात्रावेकविंशद् दिनावधि।
एकविंशत्पुटैरेवं म्रियते त्रिविधं ह्ययः।। 122।।

The decoction of *triphala* is prepared in cow's urine and with

this, twenty one *bhavanas* are given to the powder of *loha*. This is then ground in the *khalva* to make fine powder, for a day, confined into *sharava samputa* and heated in *gajaputa*. This resultant material once again is given the *bhavana* of decoction of *triphala*, prepared in the cow's urine and subjected to *gajaputa* during the night. Such twenty one *putas* can produce the *bhavana* of all three types of *lohas*.

Method XI

यत्पात्राध्युषिते तोये तैलबिन्दुर्न सर्पति।
तारेणावर्तते यत्तत्कान्तलोहं तनूकृतम्।। 123।।
अयसामुत्तमं सिञ्चेत् तप्तं तप्तं वरारसे।
एवं शुद्धानि लोहानि पिष्ट्यान्यम्लेन केनचित्।। 124।।
मृतसूतस्य पादेन प्रलिप्तानि पुटानले।
पचेत्तुल्यस्य वा ताप्यगन्धाश्महरतेजसा।। 125।।
तप्तं क्षाराम्लसंलिप्तं शशरक्तेन भावितम्।
कान्तलोहं भवेद्भस्म सर्वदोषविवर्जितम्।। 126।।

That *kantaloha* with which a vessel is prepared and if a drop of oil is put on the water taken in such a vessel does not spread and that *kantaloha* when melted along with silver, mixes with it, is taken and rolled into leaves. They are heated red hot and repeatedly immersed in the decoction of *triphala*. Over this purified leaves of iron, a paste prepared by rubbing quarter quantity of *bhasma* of *parada* in lemon juice or the paste obtained by rubbing *svarna makshika*, *gandhaka* and *parada* (in sour juices) is smeared and subjected to *gajaputa*. The resultant substance is again ground with *svajika kshara*, *yavakshara* and *tarkana* along with lemon juice and rubbed with blood of rabbit and treated in the *gajaputa*. This would yield the *kanta bhasma* devoid of any blemishes.

Method XII

शुद्धं सूतं द्विधा गन्धं खल्वेन कृतकज्जलम्।
द्वयोः समं लौहचूर्णं मर्दयेत्कन्यकाद्रवैः।। 127।।

यामद्वयात्समुद्धृत्य तद्गोलं कांस्यपात्रके।
आच्छाद्यैरण्डपत्रैश्च यामार्धेऽत्युष्णतां व्रजेत्।। 128।।
धान्यराशौ न्यसेत्पश्चात् त्रिदिनान्ते समुद्धरेत्।
सम्पेष्य गालयेद्वस्त्रे सत्यं वारितरं भवेत्।। 129।।
कान्तं तीक्ष्णं च मुण्डं च निरुत्थं जायते मृतम्।
स्वर्णादीन्मारयेदेवं चूर्णं कृत्वा च लौहवत्।। 130।।
सिद्धयोगो ह्ययं ख्यातः सिद्धानां सुमुखागतः।
अनुभूतं मया सत्यं सर्वरोगजरापहम्।
त्रिफलामधुसंयुक्तं सर्वरोगेषु योजयेत्।। 131।।

One part of the purified *parada* and two parts of purified *gandhaka* are ground to *kajjali*, added to the equal quantity of powder of *loha* and triturated into the juice of *kumari* for two *prahara* (6 hours) to prepare a ball. This ball is covered with a leaf of *eranda* and kept in a bronze vessel, heated either in strong sunrays or on the fire for half *prahara* (one and half hours). Later this vessel is kept in the midst of a heap of grains. After three days, the ball is taken out, rubbed and seived in a cloth, which would yield a *varitara bhasma*.

With the help of above processes, all the three types of *loha* can be converted into *niruttha bhasma*. This method is called *siddha yoga*, as it has been expounded directly by the *siddha* himself. This process is my (author's) experience too and can cure all the diseases and wards off the old age as well. For such benefits, this *bhasma* is given with *triphala* and honey.

Properties of Loha Bhasma

कान्तायः कमनीयकान्तिजननं पाण्ड्वामयोन्मूलनम्,
यक्ष्मव्याधिनिबर्हणं गरहरं दोषत्रयोन्मूलनम्।
नानाकुष्ठनिबर्हणं बलकरं वृष्यं वयस्तम्भनम्,
सर्वव्याधिहरं रसायनवरं भौमामृतं नापरम्।। 132।।
एतत्स्यादपुनर्भवं हि भसितं लोहस्य दिव्यामृतं,
सम्यक् सिद्धरसायनं त्रिकटुकीवेल्लाज्यमध्वन्वितम्।
हन्यान्निष्कमितं जरामरणजव्याधींश्च सत्पुत्रदं,

दिष्टं श्रीगिरिशेन कालयवनोद्भूत्यै पुरा तत्पितुः।। 133।।
लोहं जन्तुविकारपाण्डुपवनक्षीणत्वपित्तामय-
स्थौल्यार्शोग्रहणीज्वरार्तिकफजिच्छोफप्रमेहप्रणुत्।
गुल्मप्लीहविषापहं बलकरं कुष्ठाग्निमान्द्यप्रणुत्,
सौख्यालं विरसायनं मृतिहरं किट्टञ्च कान्तादिवत्।। 134।।
मृतानि लोहानि रसीभवन्ति निघ्नन्ति युक्तानि महामयांश्च।
अभ्यासयोगाद् दृढदेहसिद्धिं कुर्वन्ति रुग्जन्मजराविनाशम्।। 135।।

The *kanta loha bhasma*, enhances the complexion, uproots the diseases like *pandu*, *rajayakshma* and destroys the symptoms of poisoning. It is tonic and rejuvenator. It maintains the life, eradicates all the diseases and is *rasayana*. This *kantaloha* alleviates all the three *doshas* and destroys the *kustha*. There is no *amrita* (nectar) on the earth better than this *kantaloha*.

The *niruttha bhasma* of *kantaloha* is like best *amrita* and best *rasayana*. If it is consumed in the dosage of on *nishka* (twenty four *ratti* or 3 gms.) the senility, death and all the diseases are eradicated. It is capable of imparting with an offspring. This yoga was advised to the father of Kalayavana for obtaining the son, by Shri Shankara himself. This *rasayana* can eradicate the diseases like *krimi*, *pandu*, *vataroga*, *dourbalya*, *pittavyadhi*, *sthoulya*, *arsha*, *grahani*, *jvara*, *kaphavyadhi*, *shopha*, *prameha*, *gulmaroga*, *pliharoga*, *visha-vikara*, *kaustha* and *agnimandya* and is anabolic. It is excellent *rasayana* and wards off untimely death. The similar qualities can be seen in the *bhasmas* of *kitta* (*mandura*) of the *kantaloha* as well.

All the metals in their *bhasma* form readily mix with *parada* (and such other materials). They can eradicate deadly diseases if administered properly. If they are consumed for many days regularly, they build up the body and prevent the diseases as well as senility.

Best Kanta Bhasma

पक्कजम्बूफलच्छायं कान्तलोहं तदुत्तमम्।। 136।।

The *kantaloha bhasma* which has the colour of ripened *jambu* fruit is said to be excellent.

Loha Dravana (Liquefied Iron)

त्रि:सप्तकृत्वो गोमूत्रे जालिनीभस्म भावितम्।
शोषयेत्तस्य वापेन तीक्ष्णं मूषागतं द्रवेत्।। 137।।
सुरदालिभस्मगलितं त्रि:सप्तकृत्वोऽथ गोजले शुष्कम्।
वापेन सलिलसदृशं करोति मूषागतं तीक्ष्णम्।। 138।।
सुरदालिभवं भस्म नरमूत्रेण गालितम्।
त्रि:सप्तवारं तत्क्षारवापात्कान्तद्रुतिर्भवेत्।। 139।।
गन्धकं कान्तपाषाणं चूर्णयित्वा समं समम्।
द्रुते लोहे प्रतीवापो देयो लोहाष्टकं द्रवेत्।। 140।।
देवदाल्या द्रवैर्भाव्यं गन्धकं दिनसप्तकम्।
तेन प्रवापमात्रेण लोहं तिष्ठति सूतवत्।। 141।।

The *kshara* prepared out of the *bhasma* of *panchanga* of *jalini, koshataki* is taken and twenty one *bhavanas* of cow's urine is given to this *kshara*. The *tikshna loha* is kept along with this *kshara* in a *musha* and heated intensively by which, the *loha* will become liquid.

Similarly, the *kshara* is prepared with the ash of *devadali* and rubbed twenty one times in cow's urine. The *tikshna loha* is heated strongly along with the above *kshara* to obtain *loha* in the liquid form like water.

The *devadali kshara* is given twenty one *bhavana* of human urine and poured over the heated *kantaloha* and further heated intensively to obtain the *kanthaloha* in liquid form.

Equal quantity of *gandhaka* and *kantapashana* (*kantaloha*) are ground together. This powder, if put on any of eight melted metals, the particular metal will remain in the liquid form alone.

Seven *bhavanas* of juice of *devadali* is given to *gandhaka* and the *pravapa* (putting on) of this *gandhaka*, if given to the melted *loha*, it will remain melted.

Effects of Ashuddha and Apakva Loha

अशुद्धलोहं न हितं निषेवणादायुर्बलं कान्तिविनाशि निश्चितम्।
हृदि प्रपीडां तनुते ह्यपाटवं रुजं करोत्येव विशोद्ध्य मारयेत्।। 142।।

The *loha* which is not purified, is always unwholesome. If such *loha* (*bhasma*) is consumed, it destroys the strength and complexion of the body and reduces the life span. It also causes *hritsula* and weakness and many other diseases.

Hence, only after proper *shodhana*, the *loha* is subjected to the process of *marana* (for therapeutical usage).

Comparative Superiority of Lohas

किट्टाद्दशगुणं मुण्डं मुण्डात्तीक्ष्णं शतोन्मितम्।
तीक्ष्णाल्लक्षगुणं कान्तं भक्षणात्कुरुते गुणान्।
तस्मात्कान्तं सदा सेव्यं जरामृत्युहरं नृणाम्।। 143।।
आयुष्प्रदाता बलवीर्यकर्ता रोगप्रहर्ता मदनस्य कर्ता।
अय: समानं न हि किञ्चिदन्यद्रसायनं श्रेष्ठतमं हि जन्तो:।। 144।।

The *munda* variety of *loha* is ten times superior therapeutically to *mandura*. The *tikshna loha* is one hundred times beneficial as compared to the *munda loha*. However, the *kantaloha* is said to be one lakh times more superior to the former ones.

It is said that the *kantaloha bhasma* is capable of eradicating senility and death. There is no other excellent *rasayana* which is as good as the *kantaloha rasayana*, which improves life span, strength, semen, and can cure the diseases.

MANDURA
(Iron Oxide)

अक्षाङ्गारैर्धमेत् किट्टं लोहजं तद्गवां जलै:।
सेचयेदक्षपात्रान्त: सप्तवारं पुन: पुन:।। 145।।
मण्डूरोऽयं समाख्यातश्चूर्णं श्लक्ष्णं नियोजयेत्।
गोमूत्रैस्त्रिफला क्वाथ्या तत्क्वाथे सेचयेच्छनै:।। 146।।

लोहकिट्टं सुसन्तप्तं यावज्जीर्यति तत्स्वयम्।
तच्चूर्णं जायते पेष्यं मण्डूरोऽयं प्रयोजयेत्।। 147।।
ये गुणा मारिते मुण्डे ते गुणा मुण्डकिट्टके।
तस्मात्सर्वत्र मण्डूरं रोगशान्त्यै: प्रयोजयेत्।। 148।।

The *kitta* (the by-product-*mandura* which is evolved from *loha*) is heated strongly in the coal of *bhibhitaki* wood and immersed in the cow's urine, kept in the vessel made of *bhibhitaki* wood. This process is repeated for seven times, by which *mandura* becomes *shuddha*. It is used after making fine powder.

Mandura is heated repeatedly and dipped into the *triphala quatha* prepared in the cow's urine until the entire *mandura* turns into powder. This powder is then ground to very fine powder.

All the therapeutical qualities which are present in the *munda loha* are existed in the *mandura*. Hence, the *bhasma* of *mandura* is used always for the eradication of diseases.

VANGA
(Tin)

Varieties of Vanga

खुरकं मिश्रकञ्चेति द्विविधं वङ्गमुच्यते।
खुरं तत्र गुणै: श्रेष्ठं मिश्रकं न हितं मतम्।। 149।।
धवलं मृदुलं स्निग्धं द्रुतद्रावं सगौरवम्।
नि:शब्दं खुरवङ्गं स्यान्मिश्रकं श्यामशुभ्रकम्।। 150।।

Vanga is of two types. One is *khuraka vanga* and another *mishraka vanga*. Among them the *khuraka vanga* is said to be superior where as the *mishraka vanga* is unwholesome.

The *khuraka vanga* is bright white, soft, slimmy, and heavy. It melts very quickly without any sound. The *mishraka* is said to be blackish white in colour.

Properties of Vanga

वङ्गं तिक्तोष्णकं रूक्षमीषद्वातप्रकोपनम्।
मेहश्लेष्मामयघ्नञ्च मेदोघ्नं कृमिनाशनम्।। 151।।

Vanga is *tikta* is taste, and *ushna* in *virya, ruksha* in nature and slightly aggravates *vatadosha*. It eradicates the diseases like *prameha, kapharoga, medoroga* and *krimiroga.*

Shodhana of Vanga

द्रावयित्वा निशायुक्ते क्षिप्तं निर्गुण्डिकारसे।
विशुद्ध्यति त्रिवारेण खुरवङ्गं न संशय:।। 152।।
अम्लतक्रविनिक्षिप्तं वर्षाभूविषतिन्दुभि:।
कट्फलाम्बुगतं वङ्गं द्वितीयं परिशुद्ध्यति।। 153।।
शुद्ध्यति नागो वङ्गो घोषो रविरातपेऽपि मुनिसङ्ख्यै:।
निर्गुण्डीरससेकैस्तन्मूलरज: प्रवापैश्च।। 154।।

The *vanga* is melted and poured into the juice of *nirgundi* which is added with *haridra* powder, for three times by which undoubtedly, the *vanga* becomes *shuddha.*

The other variety *mishraka vanga* is melted similarly and immersed in the sour butter-milk, mixed with the powder of *punarnava* and *kuchala* (*karaskara*) for three times and similarly in the decoction prepared out of *katphala* for three times. This would purify all these metals.

The metals like *vanga, naga, kamsya* and *tamra* are individually melted and poured into the juice of *nirgundi* mixed with the powder of the *nirgundi* root. This would purify all these metals.

Marana of Vanga

Method I

सतालेनार्कदुग्धेन लिप्त्वा वङ्गदलानि च।
बोधिचिञ्चात्वच: क्षारैर्दद्याल्लघुपुटानि च।
मर्दयित्वा चरेद्भस्म तद्रसादिषु शस्यते।। 155।।

A paste of *shuddha haratala* rubbed in the latex of *arka* is smeared over the thin leaves of *vanga*. Then in a *sharava samputa*, these leaves are kept in between the *ksharas* of *ashvatha* and *chincha* and subjected to *laghu puta*. After removing from the *puta*, it is finely powdered by grinding. It is very useful in the various mercurial process.

Method II

प्रद्राव्य खर्परे वङ्गं षोडशांशं रसं क्षिपेत्।
स्वल्पस्वल्पाऽऽलकं दत्त्वा भारद्वाजस्य काष्ठतः।
मर्दयित्वा चरेद्भस्म तद्रसादिषु शस्यते।। 156।।

The *vanga* is melted in an earthen pot and added with 1/16 part of purified *parada*. Then *shuddha haratala* is added little by little gradually and rubbed with a wooden staff of *bharadvaja* (*vanakarpasa*) continuously. The *bhasma* which is available thus would be precious in different murcurial processes.

Method III

पलाशद्रवयुक्तेन वङ्गपत्रं प्रलेपयेत्।
तालेन पुटितं पश्चान्म्रियते नात्र संशयः।। 157।।

Shuddha haratala is gound in the juice of the root of *palasha* and this paste is applied over the thin leaves of *vanga*. The *vanga bhasma* can be obtained undoubtedly, if these leaves are kept in *sharava samputa*, and subjected to *puta*.

Method IV

भल्लाततैलसंलिप्तं वङ्गं वस्त्रेण वेष्टितम्।
चिञ्चापिप्पलपालाशकाष्ठाग्नौ याति पञ्चताम्।। 158।।

The thin leaves of *vanga* are smeared with the *bhallataka* oil, tied in a cloth and heated in the fuel of *chincha*, *ashvattha* and *palasha* to obtain *vanga bhasma*.

Administration of Vanga

वङ्गभस्मसमं कान्तं व्योमभस्म च तत्समम्।
मर्दयेत्कनकाम्भोभिर्निम्बपत्ररसैरपि।। 159।।
दाडिमस्य मयूरस्य रसेन च पृथक् पृथक्।
भूपालावर्तभस्माथ विनिक्षिप्य समांशकम्।। 160।।
गोमूत्रकशिलाधातुजलैः सम्यग्विमर्दयेत्।
ततो गुग्गुलुतोयेन मर्दयित्वा दिनाष्टकम्।। 161।।
विशोष्य परिचूर्ण्याथ समभागेन योजयेत्।
घृष्टं बन्धुकनिर्यासैर्नाकुलीबीजचूर्णकैः।। 162।।
ततः क्षिपेत्करण्डान्तर्विधाय पटगालितम्।
गोतक्रपिष्टरजनीसारेण सह पाययेत्।। 163।।
चतुर्भिर्वल्लकैस्तुल्यं रम्यं वङ्गरसायनम्।
निश्चितं तेन नश्यन्ति मेहा विंशतिभेदकाः।। 164।।
शालयो मुद्गसूपं च नवनीतं तिलोद्भवम्।
पटोलं तिक्ततुण्डीरं तक्रं पथ्याय शस्यते।। 165।।

The *bhasmas* of *vanga*, *kantaloha* and *abhraka* are taken in equal quantity and ground in the juice of leaves of *dhattura* and *nimba* and given one *bhavana* each of juices of *dadima* and *mayura* (*apamarga*). This mixture is then added with the equal quantity of *bhasma* of *rajavarta* and mixed well in the solution of *gomutra gandhi shilajitu*. Further grinding is done for eight days in the solution of *guggulu*. It is then powdered finely after drying. This powder is then rubbed with the juices or decoctions of *bandhuka* and *nakuli* (*rasna*), dried, sieved in the cloth and stored in a glass bottle.

This excellent *vanga–rasayana*, if consumed along with powder of *haridra* and cow's butter milk, definitely eradicates twenty types of *pramehas*. While administration, one should consume the wholesome foods like *shali* type of rice, soup of *mudga*, butter, ginger, *patola*, *tiktatundira*, butter milk etc.

NAGA (SISAKA)
(Lead)

Best Naga

द्रुतद्रावं महाभारं छेदे कृष्णसमुज्ज्वलम्।
पूतिगन्धं बहिः कृष्णं शुद्धं सीसमतोऽन्यथा।। 166।।

That *sisa dhatu* (lead) which melts quickly, which is heavy, the broken surface of which is black and bright, which emits foul smell and the outer surface of which is black, is said to be excellent. The one which has opposite qualities is not useful.

Properties of Naga

अत्युष्णं सीसकं स्निग्धं तिक्तं वातकफापहम्।
प्रमेहतोयदोषघ्नं दीपनं चामवातनुत्।। 167।।

Sisa dhatu is extremely *ushna* in nature, *snigdha* and has *tikta rasa*. It alleviates *vata* and *kapha doshas* and eradicates the *prameha* as well as the diseases evolving from the consumptions of contaminated water. It improves the digestive power and destroys the *amavata*.

Shodhana of Naga

सिन्दुवारजटाकौन्तीहरिद्राचूर्णकं क्षिपेत्।
द्रुते नागेऽथ निर्गुण्ड्यास्त्रिवारं निक्षिपेद्रसे।
नागः शुद्धो भवेदेवं मूर्च्छास्फोटादि नाचरेत्।। 168।।

Sisa is melted in an earthen vessel and powder of *jata* of *nirgundi* and seeds of *renuka* (*harenu*) are added and ground. This mixture then is immersed in the juice of leaves of *nirgundi*. This process is repeated for three times to purify the *naga*. By administering its *bhasma*, it can prevent *murcha, sphota* etc.

Marana of Naga

Method I

तिर्यगाकारचुल्ल्यान्तु तिर्यग्वक्त्रं घटं न्यसेत्।
तं च वक्त्रं विना सर्वं गोपयेद्यतलतो मृदा।। 169।।
भ्राष्ट्रयन्त्राभिधे तस्मिन् यन्त्रे सीसं विनिक्षिपेत्।
पलविंशतिकं नागमधस्तीव्रानलं क्षिपेत्।। 170।।
द्रुते नागे क्षिपेत्सूतं शुद्धं कर्षमितं शुभम्।
घर्षयित्वा क्षिपेत् क्षारमेकैकं हि पलं पलम्।। 171।।
अर्जुनस्याक्षवृक्षस्य महाराजगिरेरपि।
दाडिमस्य मयूरस्य क्षिप्त्वा क्षारं पृथक् पृथक्।। 172।।
एकविंशतिरात्राणि पचेत् तीव्रेण वह्निना।
विघट्टयन्दृढं दोर्भ्यां लोहदर्व्या प्रयत्नतः।। 173।।
रक्तं तज्जायते भस्म कपोतच्छायमेव वा।
नागं दोषविनिर्मुक्तं जायतेऽतिरसायनम्।। 174।।

A transeversly twisted stove is made and an earthen pot with a twisted mouth is kept upon that. Its outer sunface, except the mouth portion, is pasted with mud. This instrument is called *bhrastra yantra*. Twenty *palas* (880 gms.) of purified *naga* is melted in an intensive fire and after adding one *tola* (about 11 gm.) of purified *parada*, it is rubbed and stirred. While grinding, the *ksharas* of *arjuna*, *bibhitaka*, *aragvadha*, *dadima* and *mayura* (*apamarga*) each four *tola* (44 gms.), are added one by one in that order, in the melted *naga*. This mixture is continually heated on strong fire for twenty one days while stirring, with pressure with the help of an iron rod. This would yield ultimately, *naga bhasma* having red colour or the one which has greyish tint, devoid of any blemishes which is *rasayana*.

Method II

हतमुत्थापितं सीसं दशवारेण सिद्ध्यति।
तन्मृतं सीसकं सर्वदोषमुक्तं रसायनम्।। 175।।

The *sisa* is retrieved (by *uthapana*) from its *bhasma* and once again converted into *bhasma*. Thus, the process is repeated for ten times. This *bhasma* which is obtained from this process at the end, is faultless and *rasayana*.

Method III

अश्वत्थचिञ्चात्वग्भस्म नागस्य चतुरंशत:।
क्षिपेन्नागं पचेत्पात्रे चालयेल्लोहचाटुना।। 176।।
यावद्भस्म तदुद्धृत्य भस्मतुल्या मन:शिला।
जम्बीरैरारनालैर्वा पिष्ट्वा रुद्ध्वा पुटे पचेत्।। 177।।
स्वाङ्गशीतं पुन: पिष्ट्वा विंशत्यंशशिलायुतम्।
अम्लेनैव तु यामैकं पूर्ववत्पाचयेत् पुटे।
एवं षष्टिपुटै: पक्वो नाग: स्यात् सुनिरुत्थक:।। 178।।

One part of *sisa* and quarter part each of the ash of barks of *ashavatha* and *chincha* are taken. The *sisa* is melted and the above ashes are added to it little by little while stirring well with an iron stirrer. When the entire amount of *sisa* is converted into *bhasma*, equal quantity of *manahshila* is added, rubbed either in lemon juice or *kanji*, kept in *sharava samputa* and subjected to *puta*. When selfcold, removed, added 1/20 part of *manahshila*, ground in a sour liquid for 3 hours and once again *putta* is given. Such sixty *putas* yield *niruttha bhasma* of *naga*.

Method IV

शिलया रविदुग्धेन नागपत्राणि लेपयेत्।
मारयेत्पुटयोगेन निरुत्थं जायते तथा।। 179।।

Thin leaves of the *naga* are smeared with the paste prepared by rubbing *manahshila* in the latex of *arka*. They are then kept in *sharava samputa* and subjected to *puta* to obtain the *niruttha bhasma*.

Administration of Naga

एवं नागोद्भवं भस्म ताप्यभस्मार्धभागिकम्।
पादं पादं क्षिपेद्भस्म शुल्बस्य विमलस्य च।। 180।।
कान्ताभ्रसत्त्वयोश्चापि स्फटिकस्य पृथक् पृथक्।
सर्वमेकत्र सञ्चूर्ण्य पुटेत् त्रिफलवारिणा।। 181।।
त्रिंशद्वनगिरिण्डैश्च त्रिंशद्वारं विचूर्ण्य तत्।
व्योषवेल्लकचूर्णैश्च समांशै: सह मेलयेत्।। 182।।
मध्वाज्यसहितं हन्ति प्रलीढं वल्लमात्रया।
अशीतिवातजान् रोगान् धनुर्वातं विशेषत:।। 183।।
कफरोगानशेषांश्च मूत्ररोगांश्च सर्वश:।
श्वासं कासं क्षयं पाण्डुं श्वयथुं शीतकज्वरम्।। 184।।
ग्रहणीमामदोषञ्च वह्निमान्द्यं सुदुर्जयम्।
सर्वानुदकदोषांश्च तत्तद्रोगानुपानत:।। 185।।

Four *tola* (48 gms.) of *nagabhasma*, two *tola* (24 gms.) of *svarnamakshika bhasma*, one *tola* (12 gms.) each of *tamra bhasma, vimala bhasma, kanta loha bhasma, abraka satva bhasma* and *sphatika bhasma* are taken together and given the *bhavana* of *triphala quatha*. A ball prepared out of this, is kept in *sharava samputa* and subjected to *puta*, with thirty cowdung cakes. If such thirty *putas* are given, excellent *bhasma* of *naga* is available.

Shunthi, maricha, pippali and *vidanga* are taken in equal quantity of the *bhasma* and powdered, mixed, with the *bhasma* and together rubbed well.

The above *naga rasayana* is administered in the dosage of one *valla* (375 mg.) along with honey and ghee. This would eradicate all the eighty *vata* diseases, all the diseases pertaining to *mutravahasrotas, shvasa, kasa, kshaya, pandu, shotha, shitajvara, grahani, amadosha, agnimandya* etc. even if they are incurable. It can also check the diseases caused by the contaminated water, if administered with suitable *anupana*.

PITTALA
(Brass)

रीतिका काकतुण्डी च द्विविधं पित्तलं भवेत्।
सन्ताप्य काञ्जिके क्षिप्त्वा ताम्राभा रीतिका मता।
एवं या जायते कृष्णा काकतुण्डीति सा मता।। 186।।

Ritika and *kakatundi* are two varieties of *pittala*. The one which becomes red on heating and immersing in *kanji*, is the former *ritika* variety. If it turns black, then it is *kakatudi*.

Grahya-Agrahya Pittala

गुर्वी मृद्वी च पीताभा साराङ्गी ताडनक्षमा।
सुस्निग्धा मसृणाङ्गी च रीतिरेतादृशी शुभा।। 187।।
पाण्डुपीता खरा रूक्षा बर्बरा ताडनाक्षमा।
पूतिगन्धा तथा लघ्वी रीतिर्नेष्या रसादिषु।। 188।।

The *pittala* which is heavy, soft, having beautiful yellow colour, unbreakable on hammering, slimmy, is said to be superior. The one which is whitish yellow, rough to touch, dirty, breakable on hammering, having foul smell and light in weight, is supposed to be inferior and should not be used in the mercurial processes.

Properties of Pittala

रीतिस्तिक्तरसा रूक्षा जन्तुघ्नी सास्रपित्तनुत्।
कृमिकुष्ठहरा योगात् सोष्णवीर्या च शीतला।। 189।।
काकतुण्डी गतस्नेहा तिक्तोष्णा कफपित्तनुत्।
यकृत्प्लीहहरा शीतवीर्या च परिकीर्तिता।। 190।।

The *ritika* type of *pittala* is *tikta* in *rasa*, *ruksha* and beautiful. It cures *rakta pitta*, *krimi* and *kustha*. It is *yogavahi* in nature and acts as a *ushna virya* drug along with the other *ushna virya dravya* and *shita virya* drug, when combined with other *shita virya* drug.

The *kakatundi* variety of *pittala* is *asnigdha*, (non-slimmy), has *tikta rasa*, *ushna* to touch and alleviates *kapha* and *pitta*. It eradicates the diseases of *yakrit* and *pliha* and is *shita* in *virya*.

Shodhana of Pittala

तप्त्वा क्षिप्त्वा च निर्गुण्डीरसे श्यामारजोऽन्विते।
पञ्चवारेण संशुद्धिं रीतिरायाति निश्चितम्।। 191।।

If the *pittala* is heated red hot, and immersed in the juice of *nirgundi* mixed with *haridra* powder, (repeated for five times), it becomes *shuddha*, undoubtedly.

Marana of Pittala

निम्बूरसशिलागन्धवेष्टिता पुटिताऽष्टधा।
रीतिरायाति भस्मत्वं ततो योज्या याथायथम्।
ताम्रवन्मारणं तस्या: कृत्वा सर्वत्र योजयेत्।। 192।।

A paste prepared by rubbing the *manahshila* and *gandhaka* in lemon juice, is smeared over the thin leaves of *pittala* and subjected to *puta* for eight times, to obtain the *bhasma*. It is used according to necessity. The *pittala bhasma* is prepared in the method similar to that of *tamra* and administered anywhere.

Administration of Pittala

मृतारकूटकं कान्तं व्योमसत्त्वं च मारितम्।
त्रयं समांशकं तुल्यं व्योषं जन्तुघ्नसंयुतम्।। 193।।
ब्रह्मबीजाजमोदाऽग्निभल्लाततिलसंयुतम्।
सेवितं निष्कमात्रं हि जन्तुघ्नं कुष्ठनाशनम्।
विशेषाच्छ्वेतकुष्ठघ्नं दीपनं पाचनं हितम्।। 194।।

Equal quantities of *pittala bhasma*, *kantaloha bhasma*, *abhraka sattva bhasma*, *shunthi*, *maricha*, *pippali*, *vidanga*, *palashabija*, *ajamoda*, *chitraka*, *bhallataka* and *tila* are taken separately. (the herbal drugs are separately powdered) and mixed together well. This combination is taken in *krimi* and *kustha* in

the dosage of one *nishka* (twenty four *ratti* or 3 gm.). Especially, it can destroy the *shveta kustha*, and is digestive, appetizer as well as wholesome.

Pittala Druti

सुवर्णरीतिकाचूर्णं भक्षितं वेष्टितं पुनः।
छागेन कृष्णवर्णेन मत्तेन तरुणेन च।। 195।।
तल्लिप्तं खर्परे दग्धं द्रुतिं मुञ्चति शोभनाम्।
चतुर्दशलसद्वर्णसुवर्णसदृशच्छविः।
देहलोहकरी प्रोक्ता युक्ता रसरसायने।। 196।।

The powder of the golden coloured *pittala* of the *ritika* variety is mixed with any edible stuff and given to a young and insolent black goat to eat. Then the faecal matter of that goat is collected and smeared inside an earthen *sharava* and heated strongly. This yields a beautiful *druti* (liquid) of *pittala*. It possesses fourteen colours of the best gold (or has lustures of all kinds of golds). It makes the men strong like iron and is used as *rasayana* and also in *rasakarmas*.

GHOSHA (KAMSYA)
(Bronze)

Characteristics of Kamsya

अष्टभागेन ताम्रेण द्विभागखुरकेण च।
विद्रुतेन भरेत्कांस्यं तत्सौराष्ट्रभवं शुभम्।। 197।।
तीक्ष्णशब्दं मृदु स्निग्धमीषच्छ्यामलशुभ्रकम्।
निर्मलं दाहरक्तं च षोढा कांस्यं प्रशस्यते।। 198।।
तत्पीतं दहने ताम्रं खरं रूक्षं घनासहम्।
मन्दनादं गतज्योतिः सप्तधा कांस्यमुत्सृजेत्।। 199।।

Eight parts of purified *tamra* and two parts of purified *vanga* are taken together and melted to obtain the *kamsya*. The *kamsya* which is produced in Saurastra *desha* is said to be superior.

That *kamsya* which is hyper-resonant, soft, slimmy, dull white in colour, clear, and which becomes red on heating, (with these six properties) is said to be best.

On the contrary, the *kamsya* which has seven characters like yellowshiness, becoming copper coloured on heating, roughness, unevenness, brittleness, hypo-resonance, and lusterlessness is supposed to be inferior and is discarded.

Properties of Kamsya

कांस्यं लघु च तिक्तोष्णं लेखनं दृक्प्रसादनम्।
कृमिकुष्ठहरं वातपित्तघ्नं दीपनं हितम्।। 200।।
घृतमेकं विना चान्यत्सर्वं कांस्यगतं नृणाम्।
भुक्तमारोग्यसुखदं हितं सात्म्यकरं तथा।। 201।।

Kamsya is easily digestible, *tikta* in *rasa*, *ushna* in *virya*, *lekhanakara* and good for eyes. It wards off *krimi*, *kustha*, diseases engendered by *vata* and *pitta* and also is appetizer and wholesome.

It is wholesome and healthy to eat the food (except ghee) which is kept in the vessels made of *kamsya*.

Shodhana of Kamsya

तप्तं कास्यं गवां मूत्रे वापितं परिशुद्ध्यति।। 202।।

The leaves of *kamsya* are heated in intensive fire and dipped in cow's urine which makes it *shuddha*.

Marana of Kamsya

म्रियते गन्धतालाभ्यां निरुत्थं पञ्चभिः पुटैः।
त्रिक्षारं पञ्चलवणं सप्तधाऽम्लेन भावयेत्।। 203।।
कांस्याऽऽरकूटपत्राणि तेन कल्केन लेपयेत्।।
रुद्ध्वा गजपुटे पक्वं शुद्धभस्मत्वमाप्नुयात्।। 204।।

Gandhaka and *haratala* are rubbed in lemon juice and the re-

sultant paste is applied over the leaves of *kamsya*. Then they are heated in the *sharava samputa* and given five *putas* to obtain the *niruttha bhasma* of *kamsya*.

Or the paste prepared by rubbing *ksharatraya* (*svarjika kshara, yava kshara* and *tankana kshara*) and *pancha lavana* (*saindhava, krishna, sambara, samudra* and *udbhida lavana*) in the sour liquid for seven times and is smeared over the leaves of *kamsya*, kept in *sharava samputa* and given *gajaputa* which yields very good *bhasma*.

VARTALOHA
(Bell Metal)

कांस्यार्करीतिलोहाऽहिजातं तद्वर्तलोहकम्।
तदेव पञ्चलोहाख्यं लोहविद्भिरुदाहृतम्।। 205।।

Kamsya, tamra, pittala, loha and *naga* are taken in equal quantity and melted to prepare the *vartaloha*. It is also called *panchaloha* by metallurgists.

Properties of Vartaloha

हिमाम्लं कटुकं रूक्षं कफपित्तविनाशनम्।
रुच्यं त्वच्यं कृमिघ्नश्च नेत्र्यं मलविशोधनम्।। 206।।
तद्भाण्डे साधितं सर्वमन्नव्यञ्जनसूपकम्।
अम्लेन वर्जितञ्चापि दीपनं पाचनं हितम्।। 207।।

Vartaloha has *shita virya*, and *amla-katurasa*. It is *ruksha* and alleviates *kapha* and *pitta*. It increases the taste, is good for skin and eradicates *krimi*. It is wholesome for eyes as well as laxative. The food stuffs except sour foods if kept in the vessels made of *vartaloha*, acts as appetizer as well as digestive and is wholesome.

Shodhana and Marana of Vartaloha

द्रुतमश्वजले क्षिप्तं वर्तलोहं विशुद्ध्यति।
म्रियते गन्धतालाभ्यां पुटितं वर्तलोहकम्।
तेषु तेष्विह योगेषु योजनीयं यथाविधि।। 208।।

For *shodhana* of *vartaloha*, it is melted and immersed in the horse's urine for seven times.

Vartaloha (leaves) are applied with the paste prepared by rubbing (in lemon juice) *gandhaka* and *haratala* and subjected to *puta* to obtain its *bhasma*. It can be used in various combinations, as and when necessary.

Need for Shodhana and Marana

जातिमद्भिर्विशुद्धैश्च विधिना परिसाधितैः।
रसोपरसलोहाद्यैः सूतः सिद्ध्यति नान्यथा।। 209।।
रत्नानि लोहानि वराटशुक्तिपाषाणजातं खुरशृङ्गशल्यम्।
महारसाद्येषु कठोरदेहं भस्मीकृतं स्यात्खलु सूतयोग्यम्।। 210।।

Parada can attain the capacity to impart the *dehasiddhi* (making the body healthy and strong) and *lohasiddhi* (converting the lower metals into gold and silver) only with the help of *maharasa, uparasa, loha* and such other substances, which have superior qualities and which are purified (*shuddha*) and prepared (undergone the process of *marana*).

All the substances like *ratna-uparatna*, (precious and semi-precious jem stones), metals, *varatika, shukti,* various kinds of ores and compounds, animal products like *shring* (horn), *ashthi-nakha* (bones) can be utilized in Rasashastra or in various mercurial processes, only if they are properly processed into *bhasma*.

BHUNAGA SATTVA

वज्राणां द्रावणार्थाय सत्त्वं भूनागजं ब्रुवे।
तदेव परमं तेजः सूतराजेन्द्रवज्रयोः।। 211।।

Bhunaga (earthworm) *sattva* is being described as which is used for the liquification of *vajra*. This *sattva* enhances the radiance, i.e. the energy of both *parada* and *vajra* (diamond).

Sattvapatana of Bhunaga

Method I

धौतभूनागसम्भूतं मर्दयेद्भृङ्गजद्रवैः।
निम्बूद्रवैश्च निर्गुण्ड्याः स्वरसैस्त्रिदिनं पृथक्।। 212।।
तद्द्रावणगणोपेतं सम्मर्द्य वटिकीकृतम्।
निरुध्य दृढमूषायां द्विदण्डं प्रधमेद्दृढम्।। 213।।
स्वतः शीतं समाहृत्य पट्टके विनिवेश्य तत्,
खकान् राजिकातुल्यान् रेणूनतिभरान्वितान्।
द्वादशांशार्कसंयुक्तान्धमित्वा खकान्हरेत्,
प्रक्षाल्य खकानाशु समादाय प्रयत्नतः।। 214।।
वज्रादिद्रावणं तेन प्रकुर्वीत यथेप्सितम्।
खरसत्त्वमिदं प्रोक्तं रसायनमनुत्तमम्।
द्वित्रिमूषासु चैकस्यां सत्त्वं भवति निश्चितम्।। 215।।

The earthworms are washed, dried and powdered. They are then ground for three days in the juice of *nirgundi*. Later the resultant mass is rubbed along with the drugs belonging to *dravana varga,* made into balls, confined to a strong crucible. Then, it is heated in intensive fire for two *danda* (48 minutes).

When self cold, the mixture is taken out and sieved in the cloth. Once the cloth gets heavy and large round grains looking like *sarshapa* are found, these are separated and 1/12 of purified *tamra* is added and are again heated vigorously. This process again yields the larger particles of *sattva*. Thus, all the *sattva* particles, are obtained, washed well and used as required in the liquification of *vajra* etc. This *sattva* is called *kharasattva* which is best *rasayana*.

If the *sattva* cannot be obtained in a single crucible, two or three crucibles are used many times and the process of *sattvapatana* is carried out, which would yield sufficient *sattva*.

Method II

भुजङ्गमानुपादाय चतुष्प्रस्थसमन्वितान्।
सुवर्णरूप्यताम्रायस्कान्तसम्भूतिभूमिजान्।। 216।।

प्रक्षाल्य रजनीतोयैः शीतलैश्च जलैरपि।
उपोषितं मयूरं वा शूरं वा चरणायुधम्।। 217।।
क्रमेण चारयित्वाथ तद्विष्ठां समुपाहरेत्।
क्षाराम्लैः सह सम्पेष्य विशोष्य च खरातपे।। 218।।
ततः खर्परके क्षिप्त्वा भर्जयित्वा मषीं चरेत्।
मषीं द्रावणवर्गेण संयुक्तां सम्प्रमर्दिताम्।। 219।।
निरुध्य कोष्ठिकामध्ये प्रधमेद्घटिकाद्वयम्।
शीतलीभूतमूषायाः खोटमाहृत्य पेषयेत्।। 220।।
प्रक्षाल्य खकान् सूक्ष्मान् समादाय प्रयत्नतः।
सुवर्णमानवद् ध्मात्वा खं कृत्वा नियोजयेत्।। 221।।

The earthworms which are available in the earth, where *svarna, rajata, tamra* and *kantaloha* are obtained, are taken in the quantity of four *prastha* (two hundred fifty six *tola* or about 3 kg.) washed first in the solution of *haridra* and then in cold water. These earthworms are fed to young and hungry peacock or hen. Then its faecal matter is collected, rubbed in *kshara* (alkalies) and *amla* substance and fried on intense fire in an earthen vessel to prepare the *mashi*. It is again ground with drugs of *dravana varga*, kept in a crucible and that in the *koshti yantra* and blowed in strong fire for two hours. After self cooling, the *musha* is retrieved and the powder adhered to it is collected, washed and the particles of *sattva* from the powder is sifted and collected. Later these are melted as told in the method of liquification of gold and the *bhunaga sattva*. The *sattva* which is available is used when ever required.

Bhunaga Sattva Mudrika

भूनागोद्भवसत्त्वमुत्तममिदं श्रीसोमदेवोदितं,
दत्तं पादमितं द्विशाणकनकेनैकं गतेनोर्मिकाम्।
तद्धौताम्बुविलेपितं स्थिरचरोद्भूतं विषं नेत्ररुक्,
शूलं मूलगदञ्च कर्णजरुजो हन्यात्प्रसूतिग्रहम्।। 222।।

Superior quality *bhunaga sattva* (as told by Shri Somadeva Rasasiddha) in the quantity of 1.5 *masha* (12 *ratti* or1.5 gms.)

and purified *svarna* two *shana* (3 gms.) are taken and melted together to prepare a ring. This ring is washed in the water and this water is applied. By this the ailments produced due to *shtavara* and *jangama visha* and *netraroga, shula, arsha, karnaroga* and *kashta prasava* are warded off.

TAILA PATANA VIDHI

Method I

मूलान्युत्तरवारुण्या जर्जरीकृत्य काञ्जिके।
क्षिपेदङ्कोल्लबीजानां पेषिकां जर्जरीकृताम्।
तत्तैलं घृतवत् स्त्यानं ग्राह्यं तत्तु यथाविधि।। 223।।

The root of *indravaruni* is rubbed well in *kanji* and prepared a paste. Similarly, the pulp from the seeds of *ankola* is ground. These two are mixed together, tied in a strong cloth and hung in an intensive sunshine. The oil resembling to ghee, which drops from it, is collected in a vessel. It is also interpreted that the above mixture is put in a vessel and kept in the sunshine. Later a ghee like substance, which is seen on the surface, is collected.

Method II

सम्पेष्योत्तरवारुण्या: पेटकार्या दलायन्थ।
काञ्जिकेन ततस्तेन कल्केन परिमर्दयेत्।। 224।।
रजश्चाङ्कोल्लबीजानां तद् वद्ध्वा विरलाम्बरे।
तद्विलम्ब्याऽऽतपे तीव्रे तस्याधश्चषकं न्यसेत्।
तस्मिन्निपतितं तैलमादेयं श्वित्रनाशनम्।। 225।।

The leaves of *indravaruni* and *petakari* are ground well in *kanji* and the pulp of seeds of *ankola* is mixed and rubbed. This mixture is then tied in a thin cloth, hung in the sunshine and the oil is collected in a glass beaker which is kept below the *potali*. This oil is capable of curing the *shveta kustha*.

Method III

अङ्कोल्लबीजसम्भूतं चूर्णं सम्मर्द्य काञ्जिकैः।
एकरात्रोषितं तत्तु पिण्डीकृत्य ततः परम्।। 226।।
स्वेदयेत्कन्दुके यन्त्रे घटिकाद्वितयं ततः।
ताञ्च पिण्डीं दृढे वस्त्रे बद्ध्वा निष्पीड्य काष्ठतः।। 227।।
अधः पात्रस्थितं तैलं समाहृत्य नियोजयेत्।
एवं कन्दुकयन्त्रेण सर्वतैलान्युपाहरेत्।। 228।।

The pulp of the seeds taken out from the *ankola* is rubbed in *kanji* and kept overnight. Next day, a ball is made of it and cooked in *kanduka yantra* tied in a strong cloth and pressed between wooden planks. The oil which oozes out is collected in a vessel. The oil can be extracted from all the oil bearing substances, by using *kanduka yantra*.

Extraction of Oil from Various Drugs

अङ्कोलस्यापि तैलं स्यात् काकतुण्ड्या समूलया।
बाकुचीदेवदाल्योश्च कर्कोटीमूलतो भवेत्।। 229।।
अपामार्गकषायेण तैलं स्याद्विषमुष्टिजम्।
मूलक्काथैः कुमार्याश्च तैलं जैपालजं हरेत्।। 230।।
क्काथै रक्तापमार्गस्य बाकुचीतैलमाहरेत्।
कृष्णायाः काकतुण्ड्याश्च बीजचूर्णानि कारयेत्।। 231।।
कान्तपाषाणचूर्णञ्च एकीकृत्य निरोधयेत्।
धान्यराशिगतं पक्षादुद्धृत्यं तैलमाहरेत्।। 232।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ रसरत्नसमुच्चये
लोहशोधनमारणादिनिरूपणं नाम पञ्चमोऽध्यायः।।

Kakatundi with its root and pulp of *ankola* seeds are ground in *kanji* and with the help of *kanduka yantra*, the oil is extracted.

Oil can be extracted from *bakuchi* or *devadali* by grinding in the juice of root of *karkota* by using the *kanduka yantra*.

Similarly, oil can be extracted from the *kuchala* by rubbing it in the decoction of *apamarga*.

By grinding the pulp of *jayaphala* seeds in the juice of *kumari* and using *kanduka yantra*, oil can be extracted.

The *bhavana* of decoction of red *apamarga* to *bakuchi* seeds is given and steaming is done to extract oil from the *bakuchi* seeds.

Pippali and seeds of *kakatundi* are powdered and *kanta pashana* (*kantaloha*) is added, equal to that of *pippali* and rubbed well.

The mixture is then kept in a vessel. Its mouth sealed and the vessel is kept in the midst of a heap of grains for a fortnight. Later retrieved and oil is extracted using *kanduka yantra*.

This completes the fifth chapter called *Loha* (Metals) *shodhana maranadi nirupanam* in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

6 Shishyopanayana

Granthahetu

रसशास्त्राणि सर्वाणि समालोच्य यथाक्रमम्।
साधकानां हितार्थाय प्रकटीक्रियतेऽधुना।। 1।।

This book is being published with an idea of helping those (disciples) who are seeking both *dehasiddhi* and *lohasiddhi*, after consulting all the books on Rasashastra and looking into (or actually performing) various processes of *parada* or *rasakarmas*.

न क्रमेण विना शास्त्रं न शास्त्रेण विना क्रमः।
शास्त्रं क्रमयुतं ज्ञात्वा यः करोति स सिद्धिभाक्।। 2।।

No science can exist without a proper order and any orderly process which is not backed by a scientific thought, too is useless. Hence, only those who acquire the knowledge in an orderly way, can achieve the goal.

Qualifications of Rasashastra Teacher

आचार्यो ज्ञानवान्दक्षो रसशास्त्रविशारदः।
मन्त्रसिद्धो महावीरो निश्चलः शिववत्सलः।। 3।।
देवीभक्तः सदा धीरो देवतायागतत्परः।
सर्वाम्नायविशेषज्ञः कुशलो रसकर्मणि।
एवं लक्षणसंयुक्तो रसविद्यागुरुर्भवेत्।। 4।।

The teacher who teaches Rasashastra should be erudite, clever, efficient in Rasashastra, should have attained *siddhi* in *mantra*, should be valiant, firm in his thoughts, devotee of Shiva

and Parvati, always courageous, should always be engrossed in *yajna,* should be perfect in ideas and expert in mercurial processes. Hence, the one who has all these qualities is fit to teach Rasashastra (*rasavaidya*).

Qualifications of a Disciple

गुरुभक्ता: सदाचारा: सत्यवन्तो दृढव्रता:।
निरालस्या: स्वधर्मज्ञा: सदाऽऽज्ञापरिपालका:।। 5 ।।
दम्भमात्सर्यनिर्मुक्ता: कुलाऽऽचारेषु दीक्षिता:।
अत्यन्तसाधका: शान्ता मन्त्राऽऽराधनतत्परा:।
इत्येवं लक्षणैर्युक्ता: शिष्या: स्यु: सूतसिद्धये।। 6 ।।

The disciple who peruses the study of Rasashastra, should be revered to the preceptor, man of right conduct, truthful, firm in his thoughts, devoid of laziness, righteous and should always follow the commands of his teacher. He should eschew the ostentation and envy, should have the knowledge of customs and practices of his own cult, should be engrossed always in ultimate goal, serene and absorbed in the practice of *mantra.* The disciple who possesses all these qualities, is deserved to puruse the *rasasiddhi.*

Qualities of an Attendent

सहाया: सोद्यमास्तत्र यथा शिष्यास्ततोऽधिका:।
कुलीना: स्वामिभक्ताश्च कर्तव्या रसकर्मणि।। 7 ।।

The attendant who assists in the mercurial processes should be more industrious, well born and more faithful than the disciple. Only such a person is fit to be the attendent in mercurial processes.

Unfit Disciple

नास्तिका ये दुराचाराश्चुम्बका गुरुतोऽपरात्।
विद्यां ग्रहीतुमिच्छन्ति चौर्यच्छद्मखलोत्सवात्।। 8 ।।

न तेषां सिद्ध्यते किञ्चिन्मणिमन्त्रौषधादिकम्।
कुर्वन्ति यदि मोहेन नाशयन्ति स्वकं धनम्।
इह लोके सुखं नास्ति परलोके तथैव च।। 9 ।।

That disciple, who is atheist, miscreant, dissolute and who has earned the knowledge from an unworthy teacher by fraud and in crooked manner, is said to be unfit and such a disciple cannot achieve the accomplishments like *mani, mantra* and *aushadhi.* If such a person, due to ignorance, tries to perform such (mercurial) practices, he would loose all the wealth. He will be devoid of not only the material enjoyment, but also of the outer world (*paraloka*).

तस्माद्भक्तिबलादेव सन्तुष्यति यदा गुरु:।
तदा शिष्येण सा ग्राह्या रसविद्याऽऽत्मसिद्धये।
हस्तमस्तकयोगेन वरं लब्ध्वा सुसाधयेत्।। 10 ।।

When the preceptor is pleased by the devotion of the disciple and becomes contented, he (the disciple) should acquire the knowledge of *rasavidya* from the teacher, in order to be fruitful in the goal. Only after obtaining the blessings from the teacher, the disciple should proceed to perform the mercurial practices.

Location of Rasashala (Pharmacy)

आतङ्करहिते देशे धर्मराज्ये मनोरमे।
उमामहेश्वरोपेते समृद्धे नगरे शुभे।। 11 ।।
कर्तव्यं साधनं तत्र रसराजस्य धीमता।
अत्यन्तोपवने रम्ये चतुर्द्वारोपशोभिते।। 12 ।।
तत्र शाला प्रकर्तव्या सुविस्तीर्णा मनोरमा।
सम्यग्वातायनोपेता दिव्यचित्रैर्विचित्रिता।। 13 ।।

The location of the pharmacy should be such that, it is devoid of any fear, and apprehension and situated in the kingdom where the ruling is done with virtue and righteousness. It should be the dwelling (abode) of Lord Shiva and goddess Parvati and is flourishing. In such a beautiful place, a wise person should arrange to perform the mercurial processes (practices).

A beautiful park is made in such a place which has four entrances. In the midst of that park, the pharmacy building is constructed, which should be spacious and elegant, and has many windows and inside which excellent portraits and pictures are hung.

तत्समीपे समे दीप्ते कर्तव्यं रसमण्डपम्।
अतिगुप्तं सुविस्तीर्णं कपाटार्गलशोभितम्।। 14।।
ध्वजच्छत्रवितानाढ्यं पुष्पमालाविलम्बितम्।
भेरीकाहलघण्टादिशृङ्गीनादविनादितम्।। 15।।
भूः समा तत्र कर्तव्या सुदृढा दर्पणोपमा।
तन्मध्ये वेदिका रम्या कर्तव्या लक्षणान्विता।। 16।।

A *rasamandapa (pandala)* is constructed in the proximity of the pharmacy, in a plain and concealed area which is supplied with ample of light. This portion should be provided with large arches and gates. It is also decorated with flags and parasols, arches and garland. The *mandapa* should be ringing with the sounds of drums, bells, and pipes etc. The floor of the *mandapa* should be firm, even and glistining like mirror. A pedestal is built on this floor, with all these proper arrangements.

Installation of Rasalinga

निष्कत्रयं हेमपत्रं रसेन्द्रं नवनिष्ककम्।
अम्लेन मर्दयेद्यामं तेन लिङ्गन्तु कारयेत्।। 17।।
दोलायन्त्रे सारनाले जम्बीरस्थं दिनं पचेत्।
तल्लिङ्गं पूजयेत्तत्र सुशुभैरुपचारकैः।। 18।।

Three *nishka* (72 *ratti* or 4.5 gms.) of gold leaves and nine *nishka* (216 *ratti* or13.5 gms.) of purified mercury are taken together and rubbed in a sour liquid (lemon juice) for three hours and a *shivalinga* (*phallus*-symbol of Lord Shiva) is prepared out of it. This *linga* is kept inside a *jambira* fruit and boiled in *dolayantra* consisting of *kanji* for a day. It is washed after retrieving and kept on the pedestal constructed in the *mandapa* and worshipped with all the rituals.

Benefits of Worshipping Rasalinga

लिङ्गकोटिसहस्रस्य यत्फलं सम्यगर्चनात्।
तत्फलं कोटिगुणितं रसलिङ्गार्चनाद्भवेत्।। 19।।
ब्रह्महत्यासहस्राणि गोहत्याश्चायुतानि हि।
तत्क्षणाद्विलयं यान्ति रसलिङ्गस्य दर्शनात्।
स्पर्शनात्प्राप्यते मुक्तिरिति सत्यं शिवोदितम्।। 20।।

If the *rasalinga* is worshipped, one can acquire the virtue (benefit) which is more than that of worshipping one thousand crore *lingas*. A mere vision of this *rasalinga* can eradicate the sins accumulated due to killing thousands of *brahmins* and lakhs of cows, within a moment. The Lord Shiva himself has uttered, that a mere touch can bring about the emancipation to the man.

Method of Worship

आग्नेय्यां श्रीअघोरेण मन्त्रराजेन चार्चयेत्।
अष्टादशभुजं शुभ्रं पञ्चवक्त्रं त्रिलोचनम्।
प्रेतारूढं नीलकण्ठं रसलिङ्गं विचिन्तयेत्।। 21।।

The *rasalinga* is installed at the *agneya* (south-east) corner of the dias and worshipping is commenced with chanting *Shri Aghora mantra.*

Nilakantha (the Lord Shiva) who has eighteen shoulders, four faces and three eyes, white in colour, and who is riding a corpse, is invoked in the *rasalinga* and worshipping is continued.

Aghora Mantra

"ॐ अघोरेभ्योऽथ घोरेभ्यो घोराघोरतरेभ्यो सर्वेभ्यः
सर्वसर्वेभ्यो नमस्तेऽस्तु रुद्ररूपेभ्यः।।
"ॐ ह्रां ह्रीं ह्रूम् अधोरतर प्रस्फुट प्रकट प्रकट
कह कह शमय शमय
जात जात दह दह
पातय पातय ॐ ह्रों ह्रैं ह्रौं अघोरात् फट्"।।

तस्योत्सङ्गे महादेवीमेकवक्त्रां चतुर्भुजाम्।
अक्षमालाङ्कुशं दक्षे वामे पाशाभयं शुभम्।
दधतीं तप्तहेमाभां पीतवस्त्रां विभावयेत्।। 22।।

The goddess Mahadevi Parvati, who is seated in the middle of the *linga* (or on the thigh of Lord Shiva) and who has one face, four shoulders and holding a garland of *rudraksha* (herbal beads) and *ankusha* (hook) in one of the right hands and a *pasha* (noose) in one of the left hands and with others posing an assurance of protection and has the complexion of a heated gold and is attired in yellow clothes, is worshipped.

Devotional Mantra

"ऊँ वाङ्मयी श्रीः कामराजशक्तिबीजं रसाङ्कुशा-
यैः समा द्वादशांशैव ज्ञेया विद्या रसाङ्कुशा"।। 23।।
अनया पूजयेद्देवीं गन्धपुष्पाक्षतादिभिः।। 24।।

The goddess is worshipped with (fragrantive) paste, flowers and traditional rice etc. chanting the *mantra* " *Vangamayi shrih kamaraja-shaktibijam rasankushayaih sama*"

नन्दीभृङ्गीमहाकालकुलीरान् पूर्वदिक्क्रमात्।
पूजयेन्नाममन्त्रैश्च प्रणवादिनमोन्तकैः।
एवं नित्यार्चनं तत्र कर्तव्यं रससिद्धये।। 25।।

At the four directions, *i.e.* east, west, south and north of *rasalinga*, respectively, the *shivalingas* called *nandi, bhringi, mahakala* and *kulira*, are installed. Then the worshipping is done with the *mantra* which starts with "*Omkara pravana mantra*", then in the middle, the name of *gandha* and *namah* at the end. (for example *Om nandine namah*). In order to achieve the *rasasiddhi*, their worship is carried out daily.

The Diksha (Initiation) for Rasavidya

रसविद्या शिवेनोक्ता दातव्या साधकाय वै।
यथोक्तेन विधानेन गुरुणा मुदितात्मना।। 26।।

सुमुहूर्ते सुनक्षत्रे चन्द्रताराबलान्विते।
कलशं तोयसम्पूर्णं हेमरत्नफलैर्युतम्।। 27।।
स्थापयेद्रसलिङ्गाग्रे दिव्यवस्त्रेण वेष्टितम्।
गन्धपुष्पाक्षतैर्धूपैर्नैवेद्यैश्च सुपूजयेत्।। 28।।
पूजान्ते हवनं कुर्याद् योनिकुण्डे सुलक्षणे।
तिलाज्यैः पायसैः पुष्पैः शतपुष्पादिकैः पृथक्।। 29।।
अघोरेण रसाङ्कुश्या होमान्ते शिष्यमाह्वयेत्।
कालिनीशक्तिसंयुक्तं रससिद्धिपरायणम्।। 30।।

This *rasavidya* (the knowledge of *rasakarmas*), which is expounded by the Lord Shiva is bestowed by the preceptor, with cheerful mind, following all the rituals and rules as per the scriptures, to the disciple.

On the day when auspicious moment and star, best *chandrabala* and *tarabala* are conglomerated together, a pot filled with water is taken. In that pot *svarna, ratna, pancha pallava* (fiver types of tender leaves) are put and it is covered with excellent cloths and installed in front of the *rasalinga*. It is then worshipped according to the rituals by offering incense, flowers, holy rice, food stuffs etc. Then a *yonikunda* (holy pit in the shape of *yoni*), with all the ritualistic qualities, is prepared and *havana* (religious ritual) is performed offering *tila*, ghee, *payasa*, (a kind of sweet pudding), flowers, *shatapushpa* etc. in the *kunda* (pit) individually, simultaneously chanting the *Aghora mantra* and *Rasankusha mantra*. After this *homa*, the teacher should invite the disciple who is possessing the *kalini shakti* and engaged in the *rasasiddhi karmas.*

Characteristics of Kalini Woman

यस्यास्तु कुञ्चिताः केशाः श्यामा या पद्मलोचना।
सुरूपा तरुणी भिन्ना विस्तीर्णजघना शुभा।। 31।।
सङ्कीर्णहृदया पीनस्तनभारेण नम्रिता।
चुम्बनालिङ्गनस्पर्शकोमला मृदुभाषिणी।। 32।।

अश्वत्थपत्रसदृशयोनिदेशसुशोभिता।
कृष्णपक्षे पुष्पवती सा नारी कालिनी स्मृता।। 33 ।।
रसबन्धे प्रयोगे च उत्तमा सा रसायने।
तदभावे सुरूपा तु या काचित्तरुणाङ्गना।। 34 ।।
तस्या देयं त्रिसप्ताहं गन्धकं घृतसंयुतम्।
कर्षैकैकं प्रभाते तु सा भवेत्कालिनीसमा।। 35 ।।

The *kalini* woman has curly hairs, beautiful eyes like lotus, is young, extremely lovely with distinct well grown hips, has closely placed well built big breasts with heaviness by which she is stooped little forward as if indicating the modesty; whose embraces and touches are extremely soft and delicate and the voice very sweet. She has a beautiful vaginal area, resembling the leaf of *ashvattha*. She menstruates in the *krishnapaksha* (when moon is on the wane). Such a woman is called *kalini* woman.

Such a *kalini* woman is extremely good in bringing about the success in *rasabandhana* and such other *rasayana* processes.

If such a woman is not available, then any beautiful woman is chosen and fed her daily morning with one *tola* (12 gm.) of purified *gandhaka* along with ghee. By this, even she can obtain all the characterstics of *kalini* woman.

एवं शक्तियुतो योऽसौ दीक्षयेत्तं गुरूत्तमः।
सुस्नातमभिषिञ्चेत मन्त्रेण कलशोदकैः।
अघोरामङ्कुशीं विद्यां दद्याच्छिष्याय सद्गुरुः।। 36 ।।

The preceptor should give the initiation of *rasavidya* to such a disciple who is possessed with a *kalini* woman. The disciple should present himself after religious bath etc. To such a disciple the preceptor should bestow the *vidyas* (knowledge) called *aghora* and *ankusha*, after holy sprinkling of religious water from the pot while chanting the *mantras*.

Duties of the Disciple

यथाशक्त्या सुशिष्येण दातव्या गुरुदक्षिणा।
अथाज्ञया गुरोर्मन्त्रं लक्षं लक्षं पृथग जपेत्।। 37 ।।

अनया पूजयेद्देवीमिमां विद्यां रसाङ्कुशीम्।
दशांशं जुहुयात्कुण्डे त्रिकोणे हस्तमात्रके।
जातिपुष्पं त्रिमध्वक्तं पूर्णान्ते कन्यकार्चनम्।। 38 ।।

The initiated disciple, then should pay the fees to the preceptor, according to his ability. After obtaining the permission from the preceptor, the disciple should recite the *aghora* and *ankusha mantras*, one lakh times each and then the goddess of *rasankushi* is worshipped. After this a triangular pit (*kunda*) measuring one arm long, one arm high and one arm deep is constructed and *trimadhu* (ghee, honey and sugar) and flowers of *jati* are offered for ten thousand times. On completion of this *havana* the virgins are worshipped.

कृत्वाथ प्रविशेच्छालां शुद्धां लिप्तां सवेदिकाम्।
षट्कोणं मण्डलं तत्र सिन्दूरेण द्विहस्तकम्।। 39 ।।
वेदिकायां लिखेत् सम्यक् तद्बहिश्चाष्टपत्रकम्।
कमलं चतुरस्रञ्च चतुर्द्वारैः सुशोभितम्।। 40 ।।
कर्णिकायां न्यसेत् खल्लं लोहजं स्वर्णलेखितम्।
तन्मध्ये रसराजं तु पलानां शतमात्रकम्।
पञ्चाशत्पञ्चविंशद्वा पूजयेद् रसलिङ्गवत्।। 41 ।।

After this, the disciple should enter the pharmacy which is cleaned and smeared (with cowdung), where a dias is already prepared. On this dias, hexagonal *mandala* (ritualistic diagram) is drawn, measuring two arms long and wide, with the help of *sindura* (vermilion). With the same *sindura*, an eight petalled lotus, which is accorded with four corners and four entrances, is drawn outside the above *mandala*. In the center of this lotus an iron *khalva* (mortar and pestle) decorated with golden lines, is installed and in this one hundred *pala* (four hundred *tola* or 4.8 kg.) or fifty *pala* (two hundred *tola* or 2.4 kg.) or twenty five *pala* (one hundred *tola* or1.2 kg) of purified *parada* is placed and is worshipped, as done in case of *rasalinga*.

वज्रवैक्रान्तवज्राभ्रकान्तपाषाणटङ्कणम्।
भूनागः शक्तयश्चैताः षट्कोणे पूजयेत्क्रमात्।। 42 ।।

गन्धतालककासीसशिलाकङ्कुष्ठभूषणम्।
राजावर्तो गैरिकश्च ख्याता उपरसा अमी।। 43।।
पूज्या अष्टदलेष्वेते पूर्वादीशानुगङ्क्रमात्।
रसकं विमला ताप्यं चपला तुत्थमञ्जनम्।। 44।।
हिङ्गुलं सस्यकश्चैव ख्याता एते महारसाः।
पूर्वादीशानपर्यन्तं पत्राग्रेषु प्रपूजयेत्।। 45।।
पूर्वद्वारे स्वर्णरौप्ये दक्षिणे ताम्रसीसके।
पश्चिमे वङ्गकान्तौ च उत्तरे मुण्डतीक्ष्णके।
सर्वमेतदघोरेण पूजयेदङ्कुशान्वितम्।। 46।।

The potential things like *vajra* (diamond), *vaikranta*, *vajrabhraka* (mica), *kanta pashana*, *tankana* (borax) and *bhunaga sattva* (extract of earthworms) are placed in the six corners of the hexagonal *mandala* and worshipping is done in the order, starting from the east side. *Gandhaka* (sulphur), *haratala* (orpiment), *kasisa* (green vitriol), *manahshila* (realgar), *kankusta*, *srotonjana*, *rajavarta* and *gairika* which are famed as *uparasa*, are placed in each of the eight petals of the lotus, in the order starting from east and ending at *eshanya* (north-east direction) and worshipped. *Kharpara*, *vimala*, *svarnamakshika*, *chapala*, *tuttha*, *anjana*, *hingula* and *sasyaka* which are recognized as *maharasa* are also worshipped, by placing them on the tip of the eight petals of the lotus, in the same order as said above, and worshipping is done. Of the four entrances of the dias, *svarna* and *roupya* are placed at the eastern door; *tamra* and *naga* at the southern door, *vanga* and *kantaloha* at the western door and *munda* and *tikshna* type of *loha* are placed at the northern entrance. All these are worshipped chanting *Aghora* and *Rasankushi mantras.*

Method of Worshipping of Instruments

बिडं काञ्जिकयन्त्राणि क्षारमृल्लवणानि च।
कोष्ठी मूषा वङ्कनाली तुषाङ्गारवनोपलाः।। 47।।
भस्त्रिका दण्डिकानेका शिला खल्वान्युलूखलम्।
स्वर्णकारोपकरणं समस्ततुलनानि च।। 48।।

मृत्काष्ठताम्रलोहोत्थपात्राणि विविधानि च।
दिव्यौषधीनां वर्गाश्च रञ्जकस्नेहनानि च।। 49।।
एतानि द्वारबाह्ये तु मूलमन्त्रेण पूजयेत्।
"वाङ्मायां ह्रीं ततः क्षेञ्च क्ष्मश्च पञ्चाक्षरो मनुः।। 50।।
अनेन मूलमन्त्रेण भैरवं तत्र पूजयेत्।
सर्वेषां रससिद्धानां नाम सङ्कीर्तयेत्तदा।। 51।।

Bida, *kanji*, various *yantras* (equipments), *ksharas* (alkalies), *mrittika* (mud), *lavanas* (salts), *kosthi* (furnaces), *musha* (crucible), *vankanala* (bent blowing pipes), *tusha* (husk), *kokila* (coal), *vanopala* (cowdung cake), *bhastrika* (blowers), staffs of different size and shapes, stone mortar and pestle, *ulukhala* (pounder), all the instruments used by the gold smith, balances of different sizes, various vessels and utensils made of mud, copper, wood, iron etc.; many kinds of heavenly medicines (*divyoushadi*), *ranjaka* (colouring) material, drugs belonging to *snehavarga* and such other things are installed outside the doors of the dias. These are worshipped chanting a *mula mantra "Vangmayam hrim tatah kshencha kshmascha panchaksharo manuh"*. With the same *mantra*, the Bhairava is installed in that place and worshipped. Chanting and singing is carried out in praise of all *rasasiddhas.*

Names of Rasasiddhas

व्यालाचार्यश्चन्द्रसेनः सुबुद्धिर्नरवाहनः।
नागार्जुनो रत्नघोषः सुरानन्दो यशोधनः।। 52।।
इन्द्रधूमश्च माण्डव्यश्चर्पटी शूरसेनकः।
आगमो नागबुद्धिश्च खण्डः कापालिको मतः।। 53।।
कामारिस्तान्त्रिकः शम्भुर्लङ्को लम्पकशारदौ।
बाणासुरो मुनिश्रेष्ठो गोविन्दः कपिलो बलिः।। 54।।
एते सर्वे तु सूतेन्द्रा रससिद्धा महाबलाः।
चरन्ति सर्वलोकेषु नित्या भोगपरायणाः।। 55।।
सप्तविंशतिसङ्ख्याका रससिद्धिप्रदायकाः।
वैद्याः पूज्याः प्रयत्नेन ततः कुर्याद् रसार्चनम्।। 56।।

Vyalacharya, Chandrasena, Subuddhi, Naravahana, Nagarjuna, Ratnaghosha, Surananda, Yashodhana, Indradhuma, Mandavya, Charpati, Shurasenaka, Agama, Nagabuddhi, Khanda, Kapalika, Kamari, Tantrika, Shambhu, Lanka, Lampaka, Sharada, Banasura, Munisrestha Govinda, Kapila and Bali are the twenty seven *rasasiddhas* who are able and courageous. They are engrossed in the worldly pleasures and always wander around all the world. The *vaidyas* should worship them and only after that, initiate the *rasakarma.*

हर्षयन् द्विजदेवानां तर्पयेदिष्टदेवता:।
कुमारीयोगिनीयोगीश्वरान्मेलकसाधकान्।
तर्पयेत् पूजयेद्भक्त्या यथाशक्त्यानुसारत:।। 57।।

After satisfying the gods and *brahmins* one should please the favourite (own) deity and then *kumari*, *yogini*, *yogishvara*, *rasamelaka*, and *rasasadhaka* are gratified by worshipping with veneration, according to ones own ability.

इत्येवं सर्वसम्भारयुक्तं कुर्याद्रसोत्सवम्।
सर्वविघ्नप्रशान्त्यर्थं सर्वेप्सितफलप्रदम्।। 58।।
अन्यथा यो विमूढात्मा मन्त्रदीक्षाक्रमाद्विना।
कर्तुमिच्छन्ति सूतस्य साधनं गुरुवर्जित:।। 59।।
नासौ सिद्धिमवाप्नोति यत्नकोटिशतैरपि।
तस्मात्सर्वप्रयत्नेन शास्त्रोक्तां कारयेत् क्रियाम्।। 60।।

After accumulating all the above said materials, a *rasotsava* (celebration of *rasa*) is celebrated by which one would achieve the fruits. Contrary to this, if a disciple carry on with the mercurial operation without the co-operation and guidance of the preceptor, then he would not reach the goal even after trying for crores of time. Hence, one should always adhere to all the scriptual rules and regulations and perform the operations with efforts.

Parada Siddhi

सम्यक्साधनसोद्यमा गुरुयुता राजाज्ञयाऽलङ्कृता,
नानाकर्मपराङ्मुखा रसपराश्चाढ्या जनैश्चार्थिता:।

मात्रायन्त्रसुपाककर्मकुशला: सर्वौषधे कोविदा:,
तेषां सिद्ध्यति नान्यथा विधिबलाच्छ्रीपारद: पारद:।। 61।।

Only he can achieve that beneficial *parada siddhi*, who is always busy in good efforts, who has the initiation from a preceptor and licence (permission) from the king (authorities), who is engrossed only in mercurial achievements keeping all other things aside, who is trusted by all, who is proficient in the science of dosage (or measurements), utility of equipments and preparation of medicaments; who has acquired the knowledge of all kinds of medicines and who is backed by good fortune.

Worthy of Rasashastra

रसशास्त्रं प्रदातव्यं विप्राणां धर्महेतवे।
राज्ञे वैश्याय वृद्ध्यर्थं दास्यार्थमितरस्य च।। 62।।

The teacher of Rasashastra should impart this knowledge to *brahmins* in order to protect the righteousness and welfare; to *kshatriyas* and *vaishyas* for enhancing the wealth of the country and to *shudras* for enabling them to serve better.

गुरौ तुष्टे शिवस्तुष्येच्छिवे तुष्टे रसस्तथा।
रसे तुष्टे क्रिया: सर्वा: सिद्ध्यन्त्येव न संशय:।। 63।।

If the teacher is pleased, then the Lord Shiva too would be pleased and if Shiva is satisfied, then the *parada* too would be pleased. Naturally, if the *parada* is pleased, then undoubtedly, everything can be achieved.

Reason for Keeping Rasavidya Secret

रसविद्या दृढं गोप्या मातुर्गुह्यमिव ध्रुवम्।
भवेद्वीर्यवती गुप्ता निर्वीर्या च प्रकाशनात्।। 64।।
रोगिणां बहुभिर्ज्ञातं भवेन्निर्वीर्यमौषधम्।
न रोगिविदितं कार्यं बहुभिर्विदितं तथा।। 65।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ रसरत्नसमुच्चये शिष्योपनयनं नाम षष्ठोऽध्याय:।

If the *rasavidya* (knowledge of mercury) is properly protected and kept confidential, it would retain its power. On the contrary if it is disclosed to everybody, its power would be diminished. Hence, this Rasashastra should always kept secret as if it is *guhyasthana* (reproductive parts) of one's own mother. Such a medicine which is known to all (patients) becomes effectless. Hence, the *rasachikitsa* (treatment using mercurial preparation) is carried out without the knowledge of the others as well as the sick.

This completes the sixth chapter called *Shishyopanayana* in Rasaratna Samuchchaya, written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

7
Rasashala (Pharmacy)

Location of Pharmacy

रसशालां प्रकुर्वीत सर्वबाधाविवर्जिते।
सर्वौषधिमये देशे रम्ये कूपसमन्विते।।1।।
यक्षत्र्यक्षसहस्राक्षदिग्विभागे सुशोभने।
नानोपकरणोपेतां प्राकारेण सुशोभिताम्।।2।।

A site for the pharmacy is chosen, where there is no obstacles of any kind, where all the medicinal herbs are available, which is beneficial and beautiful to look at and consists of a well. The pharmacy building is built at the north position or on the *eshanya* (NE) portion or eastern part of the site. This pharmacy should be equipped with all kinds of equipments and is beautiful to look at and is surrounded with a compound.

Working Area

शालायाः पूर्वदिग्भागे स्थापयेद्रसभैरवम्।
वह्निकर्माणि चाग्नेये याम्ये पाषाणकर्म च।।3।।
नैर्ऋत्ये शस्त्रकर्माणि वारुणे क्षालनादिकम्।
शोषणं वायुकोणे च वेधकर्मोत्तरे तथा।।4।।
स्थापनं सिद्धवस्तूनां प्रकुर्यादीशकोणके।
पदार्थसङ्ग्रहः कार्यो रससाधनहेतुकः।।5।।

The *rasabhairava* is installed at the eastern side of the pharmacy. All the instruments relating to firework are assembled at the south-eastern region and such operations related to heating etc. are only carried out in this area. At the southern part, grind-

ing work of various materials with the help of mortar and pestle is performed. An arrangement is made for the processes where sharp instruments are used, at the south-west portion of the pharmacy and in the western region there should be a facility for all kinds of cleaning, washing etc. Drying is done at north-western corners and for the *vedhakarma* (*parada karma*-converting lower metals into gold) is carried out in the southern region of the pharmacy. At the north-eastern part, arrangements are made for the storage of the prepared medicines as well as raw mineral drugs.

Equipments

सत्त्वपातनकोष्ठीञ्च सुराकोष्ठीं सुशोभनाम्।
भूमिकोष्ठीं चलत्कोष्ठीं जलद्रोण्योऽप्यनेकशः।। 6 ।।
भस्त्रिकायुगलं तद्वन्नलिके वंशलोहयोः।
स्वर्णायोघोषशुल्बाश्मकुण्ड्यश्चर्मकृतां तथा।। 7 ।।
करणानि विचित्राणि द्रव्याण्यपि समाहरेत्।
कण्डणी पेषणी खल्वा द्रोणीरूपाश्च वर्तुलाः।। 8 ।।
आयसास्तप्तखल्वाश्च मर्दकाश्च तथाविधाः।
सूक्ष्मच्छिद्रसहस्राढ्या द्रव्यगालनहेतवे।। 9 ।।
चालनी च कटत्राणि शलाका हि च कुण्डली।
मूषामृत्तुषकार्पासवनोपलकपिष्टकम्।। 10 ।।
त्रिविधं भेषजं धातुजीवमूलमयं तथा।
शिखित्रा गोबरञ्चैव शर्करा च सितोपला।। 11 ।।
काचायोमृद्वराटानां कूपिका चषकाणि च।
शूर्पादिवेणुपात्राणि क्षुद्रक्षिप्राश्च शङ्खिकाः।। 12 ।।
क्षुरप्राश्च तथा पाक्यो यच्चान्यत्तत्र युज्यते।
पालिका कर्णिका चैव शाकच्छेदनशस्त्रकाः।। 13 ।।

All the equipments such a *kosthis* (stoves, furnaces) like *sattvapatana kosthi, bhumikosthi, surakosthi* (for extracting the essence from the minerals and for distillation), *chala kosthi* (smaller, portable stoves), water storage tanks or containers of different sizes, two *bhastrikas* (bellows), metallic and bamboo pipes two each, the vessels and utensils of assorted size made of gold, iron, copper, bronze, leather and stones and many other useful instruments, equipments as well as material drugs etc. are collected and stored in the pharmacy.

Similarly, different types of *kandani* (small pounder) and *peshani* (bigger, flat stone for rubbing), *droni* (big cauldron), different kinds of mortars and suitable pestles and also the *taptakhalva* (mortar and pestle which can be heated on fire), the sieves consisting thousands of tiny holes for filtering liquids, knives, files, *kundali* (circular stands to keep the vessels) and such other things are kept ready in the pharmacy.

Apart from this, the mud used for the preparation of crucibles, *tusha* (paddy husk), cotton, cowdung cakes, floar and all the three kinds of drugs viz., mineral, herbal and animal origin are stored. Also coal, dried cowdung powder, sand, swamp and bottles made of glass, mud etc., the ladles and baskets made of bamboo, small *shuki, shanka, kshurapra* (sickles), various types of pots and vessels specially for heating, cooking the medicines and *palika* (ladle), large knives and *karnika* for cutting the herbs into pieces are collected and stored in the pharmacy.

Sieves and filtering Instruments

चालनी त्रिविधा प्रोक्ता तत्स्वरूपं च कथ्यते।
वैणवीभिः शलाकाभिर्निर्मिता ग्रथिता गुणैः।। 14 ।।
कीर्तिता सा सदास्थूलद्रव्याणां गालने हिता।
चूर्णचालनहेतोश्च चालन्यन्यापि वंशजा।। 15 ।।
कर्णिकारस्य शाल्मल्या हरिजातस्य कम्बया।
चतुरङ्गुला विस्तारयुक्तया निर्मिता शुभा।। 16 ।।
कुण्डल्यरत्निविस्तारा छागचर्माभिवेष्टिता।
वाजिवालाम्बरानद्धतला चालनिका परा।
तया प्रचालनं कुर्याद्धर्तुं सूक्ष्मतरं रजः।। 17 ।।

The sieves are of three types, their features being described here. The first type of sieve is prepared with the thin wires made of bamboo, which are secured with the thread. This kind of sieve

is used for filtering coarse substances. In order to filter the powder a sieve is prepared with the bamboo, which has tiny pores. A third kind of sieve (the outer rim) is prepared by using the wood of *karnikara*, *shalmali* or *khadira*. A four square inch high circular rim is prepared with this wood to prepare the beautiful sieve the circumference of which is one *aratni* (about 10 inches). Its lower portion is covered with hairs of horse or cloth and tied at the rim by means of goats skin. This sieve is used for filtering very fine powder.

Fuels

शिखित्रा पावकोच्छिष्टा अङ्गारा कोकिला मता:।
कोकिलाश्चेतिताङ्गारा निर्वाणा: पयसा विना।। 18।।
पिष्टकं छगणं छाणमुपलश्चोत्पलं तथा।
गिरिण्डोपलसाठी च संशुष्कच्छगणाभिधा:।। 19।।

Shikhitra, pavakochchista, angara, kokila are the synonyms of the coal. The burning coal is extinguished not by sprinkling water but by keeping it covered , which is called "*kokila*".

The dry cowdung is otherwise called *pistaka, changana, chana, upala, utpala, girinda*, and *upalasthai.*

Glassware

कूपिका कुपिका सिद्धा गोला चैव गिरिण्डिका।
चषकं च कटोरी च वाटिका खारिका तथा।
कञ्चोली ग्राहिका चेति नामान्येकार्थकानि हि।। 20।।

Kupila, kupika, siddha, gola, and *girindika* are the synonyms of the bottle, where as the synonyms of a cup (or tumbler) are *chashaka, katori, vatika, kharika, kancholi*, and *grahika.*

शालासम्मार्जनाद्यं हि रसपाकान्तकर्म यत्।
तत्रोपयोगि यच्चान्यत्तत्सर्वं परविद्यया।। 21।।
श्रीरसाङ्कुशया सर्वं मन्त्रयित्वा समर्चयेत्।
अन्यथा तद्गतं तेज: परिगृह्णन्ति भैरवा:।। 22।।

All the equipments which are needed, starting from the cleaning of pharmacy upto the *rasapaka* (final process regarding mercurial operations), should be made available and stored in the pharmacy. These too are worshipped, chanting *Shri Rasankasha mantra*, failing which the God Bhairava may destroy the power of these equipments.

Appointment of Physician

रससञ्चिन्तका वैद्या निघण्टुज्ञाश्च वार्तिका:।
सर्वदेशजभाषाज्ञा: सङ्ग्राह्यास्तेऽपि साधकै:।। 23।।

Only such physician, who has studied the Rasashastra well and has proper access to Nighantushastra (Materia medica) and who is well versed in the languages of all the (near by) countries, is appointed in the pharmacy.

रसपाकावसानां हि सदाऽघोरञ्च जापयेत्।। 24।।

Until the achievement of *rasasiddhi*, the *Aghora mantra* is chanted continuously without fail.

Attendent

सोद्यमा: शुचय: शूरा बलिष्ठा: परिचारका:।। 25।।

The attendants, working in the pharmacy should always be industrious, having good conduct and be clean, strong and courageous.

Qualities of Physician

धर्मिष्ठ: सत्यवाग्विद्वान् शिवकेशवपूजक:।
सदय: पद्महस्तश्च संयोज्यो रसवैद्यके।। 26।।
पताकाकुम्भपाथोजमत्स्यचापाङ्कपाणिक:।
अनामाध:स्थरेखाङ्क: स स्यादमृतहस्तवान्।। 27।।
अदेशिक: कृपामुक्तो लुब्धो गुरुविवर्जित:।
कृष्णरेखाकरो वैद्यो दग्धहस्त: स उच्यते।। 28।।

The physicians who are appointed in the pharmacy should be pious, truthful, scholarly, devotee of Lord Shiva and Vishnu, kind hearted and should have lotus sign on the palm.

That physician who is having on his palm, one or more signs such as flag, sacred vessel, lotus, fish and bow; or who is having lines up to base of the ring finger, is called *amrita hasta purusha.*

That physician, who has no country of his own, who is cruel, greedy, without having education from a teacher and who has black coloured lines on the palms, is called *dagdha hasta.*

भूतनिग्रहमन्त्रज्ञास्ते योज्या निधिसाधने।। 29।।

Only such a person, who has the knowledge of such *mantras,* which can expel the *bhuta-pishacha* (evil spirits) is appointed for the collection of drugs.

बलिष्ठाः सत्यवन्तश्च रक्ताक्षाः कृष्णविग्रहाः।
भूतत्रासनविद्याश्च ते योज्या बलिसाधने।। 30।।

For the task of *balikarma* (sacrifice), a person who is strong, truthful, having red eyes and body with black complexion and who is capable of warding off the evil spirits is appointed.

निर्लोभाः सत्यवक्तारो देवब्राह्मणपूजकाः।
यमिनः पथ्यभोक्तारो योजनीया रसायने।। 31।।

For the process of *rasayana karma* (preparing *rasayana* drugs), such a person is appointed who is ungreedy, who worships *brahmins,* who has conquered the passions and who always follows the dietic restrictions.

धनवन्तो वदान्याश्च सर्वोपस्करसंयुताः।
गुरुवाक्यरता नित्यं धातुवादेषु ते शुभाः।। 32।।

A rich person, who is possessing all types of instruments and who follows the advice of the preceptor is appointed for *dhatuvada* (the process of converting lower metals into gold etc).

तत्तदौषधनामज्ञाः शुचयो वञ्चनोज्झिताः।
नानाविषयभाषाज्ञास्ते मता भेषजाहृतौ।। 33।।

For the task of collecting the raw drugs useful in the mercurial processes, a person who has the knowledge of different names of medicinal herbs, possesses good conduct, who is without any malafide intentions and who has the knowledge of many things and different languages, is appointed.

शुचीनां सत्यवाक्यानामास्तिकानां मनस्विनाम्।
सन्देहोज्झितचित्तानां रसः सिद्ध्यति सर्वदा।। 34।।

Only such a person, who has good conduct, who is truthful, theist, who has control over his mind, discerning (firm) can achieve the *siddhi* in *paradakarma.*

दशाष्टक्रियया सिद्धो रसोऽसौ साधकोत्तमः।
महारसोऽयमित्युक्त्वा सेवेतान्यत्र तं रसम्।। 35।।
रससिद्धो भवेन्मर्त्यो दाता भोक्ता न याचकः।
जरामुक्तो जगत्पूज्यो दिव्यान्तिः सदा सुखी।। 36।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ रसरत्न-
समुच्चये रसशाला प्रकरणं नाम सप्तमोऽध्यायः।

After processing through eighteen *samskaras* (operations), when *parada siddhi* is attained, it is called *maharasa* and it is used where ever required, by the best *sadhaka.*

The person who achieves the *rasavidya* becomes both donor as well as consumer. He does not beg from anybody. He is liberated from the senility and praised by all. Then he can lead a contented life, after obtaining the divinity in life.

This completes seventh chapter called *Rasashala* in Rasaratna Samuchchaya written by Vagbhatcharya, the son of Shri Vaidyapati Simhagupta.

8
Paribhasha (Technical Terminology)

कथ्यते सोमदेवेन मुग्धवैद्यप्रबुद्धये।
परिभाषा रसेन्द्रस्य शास्त्रैः सिद्धैश्च भाषिता ।। 1 ।।

For the benefit of the less intelligent physicians, the *paribhasha* (technical terminology) of Rasashastra, which is accepted by the scholors and expounded in scriptures, has been described here by Shri Somadeva.

Dhanvantaribhaga

अर्धं सिद्धरसस्य तैलघृतयोर्लेहस्य भागोऽष्टमः,
संसिद्धाखिललोहचूर्णवटकादीनां तथा सप्तमः।
यो दीयेत भिषग्वराय गदिभिर्निर्दिश्य धन्वन्तरिम्,
सर्वाऽऽरोग्यसुखाप्तये निगदितो भागः स धन्वन्तरेः ।। 2 ।।

The patient, with the intention of attaining the health and happiness should contribute the physician,(who has prepared the medicines for the patient) half the portion of mercurial preparations, oils and ghees; 1/8 part of the *avaleha*, and 1/7 part of *bhasmas* of all metals and powders as well as pills. Such a portions of the medicines is called *Dhanwantari bhaga*.

Rudrabhaga

भैषज्यक्रीणितद्रव्यभागोऽप्येकादशो हि यः।
वणिग्भ्यो गृह्यते वैद्यै रुद्रभागः स उच्यते ।। 3 ।।

One eleventh portion of the medicines (or the cost of them), which is purchased by the physician or patient from the merchants, should go to the physician. This is called *Rudra bhaga*.

प्रगृह्याऽधिकरुद्रांशं योऽसमीचीनमौषधम्।
दापयेल्लुब्धधीर्वैद्यः स स्याद्विश्वासघातकः ।। 4 ।।

The physician who, with the intention of higher *Rudra bhaga*, purchases medicines, which are inferior and unwholesome, from the druggist, in order to give to the patient, is accused of as a traitor.

Kajjali

धातुभिर्गन्धकादैश्च निर्द्रवैर्मर्दितो रसः।
सुश्लक्ष्णः कज्जलाभोऽसौ कज्जलीत्यभिधीयते ।। 5 ।।

The *parada* is ground well with, either metals like *svarna* etc. or with *gandhaka* etc. without adding any liquid. The resultant material, which is very soft and fine looking *kajjala* (a black soft substance which is put in the eyes-collyrium), is called *kajjali*.

Rasapanka

सद्रवा मर्दिता सैव रसपङ्क इति स्मृतः ।। 6 ।।

Rasapanka is the resultant soft material which is produced by rubbing the above said metals and *gandhaka* etc. with *parada* along with any liquid substances.

Rasapishti (Navanita Pishti)

अर्कांशतुल्याद्रसतोऽथगन्धान्निष्कार्धतुल्यात्कुटितोऽभिखल्ले।
अर्कातपे तीव्रतरे विमर्द्या पिष्टी भवेत्सा नवनीतरूपा ।। 7 ।।

Half *nishka* (12 *ratti* or1.5 gms) of *gandhaka*, and its twelve times (144 *ratti* or18 gms) *parada* (some opine it as 1/12 part) are taken in the *khalva* and triturated well under extremely hot sunrays. The resulting butter like substances is called *rasapishti*.

Pishti

खल्ले विमर्द्य गन्धेन दुग्धेन सह पारदम्।
पेषणात्पिष्टतां याति सा पिष्टीति मता परैः ।। 8 ।।

Parada and *gandhaka* are taken in equal quantity and ground vigorously in a *khalva* along with (cow's) milk. The floor like substance which is available is called *pishti*.

Patana Pishti

चतुर्थांशसुवर्णेन रसेन कृतपिष्टिका ।
भवेत्पातनपिष्टी सा रसस्योत्तमसिद्धिदा ।। 9 ।।

The *pishti* which is prepared by grinding *parada* and one fourth of gold is called *patana pishti*. It is beneficial in the achievement of *rasasiddhi*.

Svarna Roupya Krishti

रूप्यं वा जातरूपं रसगन्धादिभिर्हतम् ।
समुत्थितञ्च बहुशः सा कृष्टि हेमतारयोः ।। 10 ।।

With the help of *parada* and *gandhaka* or *bhasma* of *svarna* or *rajata* is prepared and from these *bhasmas* once again the *svarna* or *rajata* (metals) are reobtained by *utthapana*. Such *svarna* is called *svarnakrishti*, and *rajata* is called *roupya krishti*.

Characteristics of Best Krishti

कृष्टीं क्षिपेत्सुवर्णान्तर्न वर्णो हीयते तया ।
स्वर्णकृष्ट्या कृतं बीजं रसस्य परिरञ्जनम् ।। 11 ।।

If the superior kind of *krishti* is mixed with pure *svarna*, no change of colour is seen in it. The *bija* which is prepared with such an excellent *krishti* can perform *ranjana karma* of *parada* properly.

Varaloha

ताम्रं तीक्ष्णसमायुक्तं द्रुतं निक्षिप्य भूरिशः ।
सुगन्धलकुचद्रावे निर्गतं वरलोहकम् ।। 12 ।।

The equal quantities of *tamra* and *tikshnaloha* are melted and poured in the juice of *lakucha* and then added with *gandhaka*. This process is repeated for several times. The resultant substance (an alloy) is named as *varaloha*.

Hemarakti

तेन रक्तीकृतं स्वर्णं हेमरक्तीत्युदाहृतम् ।। 13 ।।

When this *varaloha* is mixed with *svarna*, it turns red. Such a *svarna* is called *hemarakti*.

निक्षिप्ता सा द्रुते स्वर्णे स्वर्णोत्कर्षविधायिनी ।
तारस्य रञ्जनी चापि बीजरागविधायिनी ।। 14 ।।

The *hemarakti* is, when added to liquified *svarna*, gains much more beautiful colour. This *hamarakti* can be able to colour the *roupya*. As it is *bija rupa*, it can impart the best colours, even to other metals.

Tararakti

एवमेव प्रकर्तव्या ताररक्ती मनोहरा ।
रञ्जनी खलु रूप्यस्य बीजानामपि रञ्जनी ।। 15 ।।

The *tararakti* is prepared as mentioned in *hemarakti*, by adding *varaloha* in the melted *roupya*. It colours, not only the *roupya* but also the *bija*.

Chandradala and Analadala

मृतेन वा बद्धरसेन वाऽन्यल्लोहेन वा साधितमन्यलोहम् ।
सितं च पीतत्वमुपागतं तद्दलं हि चन्द्रानलयोः प्रसिद्धम् ।। 16 ।।

If, any metal is converted in to white colour, with the help of either *mrita parada* or *baddha parada* or any other metal, it is called *chandradala*. On the other hand, if the metal changes to yellow colour. it is called *analadala*.

Parada and *gandhaka* are taken in equal quantity and ground vigorously in a *khalva* along with (cow's) milk. The floor like substance which is available is called *pishti.*

Patana Pishti

चतुर्थांशसुवर्णेन रसेन कृतपिष्टिका।
भवेत्पातनपिष्टी सा रसस्योत्तमसिद्धिदा।। 9।।

The *pishti* which is prepared by grinding *parada* and one fourth of gold is called *patana pishti.* It is beneficial in the achievement of *rasasiddhi.*

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रूप्यं वा जातरूपं रसगन्धादिभिर्हतम्।
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With the help of *parada* and *gandhaka* or *bhasma* of *svarna* or *rajata* is prepared and from these *bhasmas* once again the *svarna* or *rajata* (metals) are reobtained by *utthapana.* Such *svarna* is called *svarnakrishti,* and *rajata* is called *roupya krishti.*

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कृष्टीं क्षिपेत्सुवर्णान्तर्न वर्णो हीयते तया।
स्वर्णकृष्ट्या कृतं बीजं रसस्य परिरञ्जनम्।। 11।।

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Varaloha

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सुगन्धलकुचद्रावे निर्गतं वरलोहकम्।। 12।।

The equal quantities of *tamra* and *tikshnaloha* are melted and poured in the juice of *lakucha* and then added with *gandhaka.* This process is repeated for several times. The resultant substance (an alloy) is named as *varaloha.*

Hemarakti

तेन रक्तीकृतं स्वर्णं हेमरक्तीत्युदाहृतम्।। 13।।

When this *varaloha* is mixed with *svarna,* it turns red. Such a *svarna* is called *hemarakti.*

निक्षिप्ता सा द्रुते स्वर्णे स्वर्णोत्कर्षविधायिनी।
तारस्य रञ्जनी चापि बीजरागविधायिनी।। 14।।

The *hemarakti* is, when added to liquified *svarna,* gains much more beautiful colour. This *hamarakti* can be able to colour the *roupya.* As it is *bija rupa,* it can impart the best colours, even to other metals.

Tararakti

एवमेव प्रकर्तव्याताररक्ती मनोहरा।
रञ्जनी खलु रूप्यस्य बीजानामपि रञ्जनी।। 15।।

The *tararakti* is prepared as mentioned in *hemarakti,* by adding *varaloha* in the melted *roupya.* It colours, not only the *roupya* but also the *bija.*

Chandradala and Analadala

मृतेन वा बद्धरसेन वाऽन्यल्लोहेन वा साधितमन्यलोहम्।
सितं च पीतत्वमुपागतं तद्दलं हि चन्द्रानलयोः प्रसिद्धम्।। 16।।

If, any metal is converted in to white colour, with the help of either *mrita parada* or *baddha parada* or any other metal, it is called *chandradala.* On the other hand, if the metal changes to yellow colour. it is called *analadala.*

आभासकृतबद्धेन रसेन सह योजितम्।
साधितं वाऽन्यलोहेन सितं पीतञ्च तद्दलम्।। 17।।

With the help of the *parada*, which has undergone the *Abhasa samskara*, or with the help of any other metals, if a metal changes into white colour, it is known as *sitadala* or *chandradala*. However, if it converts into yellow colour, it is called *pitadala* or *analadala*.

Shulbanaga

माक्षिकेण हतं ताम्रं दशवारं समुत्थितम्।
तद्वद्विशुद्धनागं हि द्वितयं तच्चतुष्पलम्।। 18।।
नीलाञ्जनहतं भूयः सप्तवारं समुत्थितम्।
इति संसिद्धमेतद्धि शुल्बनागं प्रकीर्त्यते।। 19।।

The *bhasma* of *tamra* is prepared by using *svarna makshika*, and from this *bhasma*, the metallic *tamra* is re-obtained, by *utthapana*. In this way, the *bhasma* is prepared for ten times and each time the metallic *tamra* is re-obtained. Similarly, *naga bhasma* is prepared with the help of *svarna makshika* and *naga* is re-obtained from the *bhasma*. This process too is repeated for ten times and *naga* is re-obtained in its metallic form. Such *tamra* and *naga* taken two *pala* (eight *tola* or 296 gms.) each together and the *bhasma* is prepared by using *nilanjana*. Such *bhasma* is processed again to obtain the combined metals of *naga* and *vanga* after repeating the process seven times. Such an alloy is called *shulba naga*.

Properties of Shulba Naga

साधितस्तेन सूतेन्द्रो वदने विधृतो नृणाम्।
निहन्ति मासमात्रेण मेहव्यूहमशेषतः।। 20।।
पथ्याशनस्य वर्षेण पलितं वलिभिः सह।
गृध्रदृष्टिर्लसत्पुष्टिः सर्वारोग्यसमन्वितः।। 21।।

A spherical ball (small) is prepared with the help of *parada* which is processed by the above *shulbanaga*. If this balls is kept in the mouth, it can cure all type of *pramehas* within a month. If such a ball is kept inside the mouth for one year while following all the diet restrictions, the *valipalita* (wrinkling of the skin and greying of hair) *roga* is eradicated. At the same time the vision becomes very sharp like that of an eagle. Also the body becomes strong, the complexion bright and the complete health is achieved.

Pinjari

लोहं लोहान्तरे क्षिप्तं ध्मातं निर्वापितं द्रवे।
पाण्डुपीतप्रभं जातं पिञ्जरीत्यभिधीयते।। 22।।

A metal is melted and mixed with another melted metal and this mixture is poured in any other liquid. By this, if the alloy turns whitish yellow then it is called *pinjari*.

Chandrarka

भागाः षोडश तारस्य तथा द्वादश भास्वतः।
एकत्रावर्तितास्तेन चन्द्रार्कमिति कथ्यते।। 23।।

Chandrarka is an alloy which is prepared by mixing the sixteen parts of melted *roupya* is twelve parts of melted *tamra*.

Nirvapana

साध्यलोहेऽन्यलोहश्चेत्प्रक्षिप्तं वङ्कनालतः।
निर्वापणं तु तत्प्रोक्तं वैद्यैर्निर्वाहणं तथा।। 24।।

Nirvapana is the process in which, another metal is combined with *sadhyaloha* (the metal which is to be processed), by blowing fire with the help of the *vankanala* (a bent pipe through which air is blown by mouth, which can concentrate the intensive fire at a particular restricted area). It is also called *nirvapana* by *vaidyas*.

Quantum of Nirvapana

क्षिपेन्निर्वापणं द्रव्यं निर्वाह्ये समभागिकम्।
आवाह्ये वापनीये च भागे दिष्टे च दिष्टवत्।। 25।।

The quantities of the *nirvahya dhatu* (the metal in which other metal is added) and the *nirvapana dhatu* (the one which is added to the one above) should be equal; or the *upaniya dhatu* (the metal which is to be added later) and *avahya* (the metal in which another metal is added) *dhatu* should be equal in their quantum. But where ever no quantity has been mentioned, then, the quantum is decided (or varied) according to ones own experience.

Varitara Bhasma

मृतं तरति यत्तोये लोहं वारितरं हि तत् ।। 26 ।।

If the *bhasma* of a metal is very fine, so that it can float on water, such *bhasma* is called *varitara.*

Rekhapurna Bhasma

अङ्गुष्ठतर्जनीस्पृष्टं यत्तद्रेखान्तरे विशेत् ।
मृतलोहं तदुद्दिष्टं रेखापूर्णाभिधानतः ।। 27 ।।

If the *bhasma* of a metal, rubbed in between the thumb and index fingure, enters into the minute lines (grooves) of the fingers, such a *bhasma* is called *rekhapurna bhasma.*

Apunarbhava Bhasma

गुडगुञ्जासुखस्पर्शमध्वाज्यैः सह योजितम् ।
नायाति प्रकृतिं ध्मानादपुनर्भवमुच्यते ।। 28 ।।

Apunarbhava bhasma is that, from which the original metal cannot be re-obtained even after intense heating in the fire, after mixing the *bhasma* with *guda* (jaggery), *gunja, tankana, madhu* (honey) and ghee (*ghrita*).

Unama Bhasma

तस्योपरि गुरु द्रव्यं धान्यं चोपनयेद्ध्रुवम् ।
हंसवत्तीर्यते वारिण्युत्तमं परिकीर्तितम् ।। 29 ।।

The above *bhasma* is placed slowly upon the water and if it does not sink even after placing grains upon the *bhasma*, but floats like swan, such a *bhasma* is called *unama bhasma* or *uttama bhasma.*

Niruttha Bhasma

रौप्येण सह संयुक्तं ध्मातं रौप्येण नो लगेत् ।
तदा निरुत्थमित्युक्तं लोहं तदपुनर्भवम् ।। 30 ।।

The *roupya* is mixed with the *bhasma* and heated vigorously in fire. If, not even a little amount of the *bhasma* mixes with the *roupya*, such *bhasma* is called *niruttha bhasma.* The said *bhasma* is *apunarbhava* (non re-obtainable) too.

Bija

निर्वापणविशेषेण तत्तद्वर्णं भवेद्यदा ।
मृदुलं चित्रसंस्कारं तद्बीजमिति कथ्यते ।
इदमेव विनिर्दिष्टं वैद्यैरुत्तरणं खलु ।। 31 ।।

Different colours are seen in a metal by various kinds of *nirvapana* (another metal in a melted metal) processes. Such a metal is soft in nature and has the capability of performing specific operations. Such a metal is called *bija* and also named as *uttarana* by physicians.

Tadana

संसृष्टलोहयोरेकलोहस्य परिणाशनम् ।
प्रध्मानात् वङ्कनालेन तत्ताडनमुदाहृतम् ।। 32 ।।

Tadana is a process in which one metal is separated from the combination of two metals, with the help of *vankanala* (bent pipe, used for blowing the fire).

Dhanyabhraka

चूर्णाभ्रं शालिसंयुक्तं वस्त्रबद्धं हि काञ्जिके ।
निर्यातं मर्दनाद्वस्त्राद्धान्याभ्रमिति कथ्यते ।। 33 ।।

The powder of *abhraka* is mixed with equal quantity of *shali dhanya* (paddy), and tied in a strong cloth to make a *potali*. This *potali* kept immersed in the *kanji* (for one day) and rubbed vigorously by hands, by which the *abhraka* in the form of fine powder, comes out of the pours of the cloth. Such *abhraka* is called *dhanyabhraka*.

Sattva

क्षाराम्लद्रावकैर्युक्तं ध्मातमाकरकोष्ठके ।
यस्ततो निर्गत: सार: सत्त्वमित्यभिधीयते ।। 34 ।।

Any mineral compound or any ore is mixed and rubbed with the drugs prescribed in *kshara varga*, *amla varga* and *dravaka varga*. Then, it is kept in a crucible and heated intensively, in a *koshthi* (furnace). By this, the metallic portion of that compound can be obtained, which is nothing but *sattva*.

Ekakolisa

कोष्ठिकाशिखरापूर्णै: कोकिलैर्ध्मानयोगत: ।
मूषाकण्ठमनुप्राप्तैरेककोलीसको मत: ।। 35 ।।

The crucible containing drugs, is kept in the *koshthi* and the coal is heaped over the crucible like dune. It is then ignited and blowed. When the flames from the coal reaches the neck of the crucible, such flames are called *ekakolisaka*.

Kokila

द्रावणे सत्त्वपाते च माधुका: खादिरा: शुभा: ।
निर्द्रवे वंशजास्ते तु स्वेदने बादरा: शुभा: ।। 36 ।।

The *kokila* (coal), derived from the wood of *madhuka* and *khadira* are said to be the best for the *dravana* (liquefying) of metals or *sattvapatana* of minerals. Whenever, it is not necessary to melt the metal (or which melts with difficulty), there, if intensive fire is desired, the coal derived out of wood of *vamsha* (bamboo) is

prepared. For the process of *svedana*, the coal of wood of *badara* is best.

Hingulakrishta Parada

विद्याधराख्ययन्त्रस्थादार्द्रकद्रवमर्दितात् ।
समाकृष्टो रसो योऽसौ हिङ्गुलाकृष्ट उच्यते ।। 37 ।।

Hingulakrishta parada is that *parada*, which is obtained from the *hingula* by grinding it in the juice of *ardraka*, keeping it in *vidyadhara yantra* and subjected to intensive heat.

Ghoshakrishta Tamra

स्वल्पतालयुतं कांस्यं वङ्कनालेन ताडितम् ।
मुक्तरङ्गं हि तत्ताम्रं घोषाकृष्टमुदाहृतम् ।। 38 ।।

The powder of *kamsya* is added with *haratala* little by little continuously, and while mixing, fire is blown with the help of *vankanala*, until the *vanga* (tin) is completely destroyed (burnt off) and only *tamra* is remained. Such a *tamra* is called *ghoshakrishta tamra*.

Varanaga

तीक्ष्णं नीलाञ्जनोपेतं ध्मातं हि बहुशो दृढम् ।
मृदु कृष्णं द्रुतद्रावं वरनागं तदुच्यते ।। 39 ।।

Equal quantities of *tikshna loha* and *nilanjana* are taken in a crucible and heated by intensive fire, repeatedly. This yields a soft, black and quickly melting alloy, which is known as *varanaga*.

Utthapana

मृतस्य पुनरुद्भूति: सम्प्रोक्तोत्थापनाख्यया ।। 40 ।।

Utthapana is the process, by which the original metal is re-obtained from its *bhasma*.

Dhalana

द्रुतद्रव्यस्य निक्षेपो द्रवे तद् ढालनं मतम्।। 41 ।।

The process in which a melted metal is poured in any liquid, is called *dhalana.*

Nagasambhuta Chapala

त्रिंशत्पलमितं नागं भानुदुग्धेन मर्दितम्।
विमर्द्य पुटयेत्तावद् यावत्कर्षांशशेषितम्।। 42 ।।
न तत्पुटसहस्रेण क्षयमायाति सर्वथा।
चपलोऽयं समादिष्टो वार्तिकैर्नागसम्भवः।। 43 ।।

Thirty *pala* (120 *tola* or 4.5 kg) of *naga* (lead) is powdered well and ground in latex of *arka.* Then, it is kept in *sharavasamputa* and subjected to *gajaputa.* This process is repeated several times, until only one *pala* (four *tola* or 48 gms.) of *naga* is remained at the end. This resultant material, subjected even to one thousand *putas,* would not loose its weight. Such a substance is called *nagasambhava chapala.*

Vangasambhuta Chapala

इत्थं हि चपलः कार्यो वङ्गस्यापि न संशयः।
तत्स्पृष्टहस्तसंस्पृष्टः केवलो बध्यते रसः।। 44 ।।
स रसो धातुवादेषु शस्यते न रसायने।
अयं हि खर्वणाख्येन लोकनाथेन कीर्तितः।। 45 ।।

Vangasambhava chapala can also be obtained, without any doubt, as derived from *naga* above. Such a *chapala* if smeared to the hands and *parada* is touched, the *parada* becomes *baddha* (immobile). Such a *baddha parada* is useful in *dhatuvada.* However, it can not be used in *rasayana* processes. These operations (of *nagasambhava chapala* and *vangasambhava chapala*) are expounded by *Kharvana* the *Lokanatha* (the lord of Universe).

Dhauta

भूभुजङ्गशकृत्तोयैः प्रक्षाल्यापहृतं रजः।
कृष्णवर्णं हि तत्प्रोक्तं धौताख्यां रसवादिभिः।। 46 ।।

The faecal matter of the *bhunaga* (earthworms) if washed in water several times, a black powder is available. It is called *dhauta* by *rasasiddhas.*

Dvandvana

द्रव्ययोर्मर्दनाद्ध्मानाद् द्वन्द्वानं परिकीर्तितम्।। 47 ।।

Dvandvana is a process, in which two substances (preferably metals) are ground and blowed in the fire in order to unite them.

Anuvarna or Suvarnaka

भागाद् द्रव्याधिकक्षेपनमनुवर्णसुवर्णके।। 48 ।।

It is a process in which a substance is added in excessive quantity than specified, to any other substance. It is called *anuvarna* or *suvarnaka.*

Bhanjani

द्रवैर्वा वह्निकाह्रासो भञ्जनी वादिभिर्मता।। 49 ।।

When a burning fire is extinguished, either with the help of liquids, like water or any other substance, the process is called *bhanjani.*

Patangi

पतङ्गी कल्कतो जाता लोहे तारे च हेमता।। 50 ।।

If the *loha* or *roupya* attains the colour of *svarna,* under the influence of the *kalka* of any of the drugs, then it is called *patangi.*

Chullika

दिनानि कतिचित्स्थित्वा यात्यसौ चुल्लिका मता ।। 51 ।।

If the above *patangi* colour, retains for few days but vanishes later, such a condition is called *chullika*.

Patangiraga

रञ्जिताद्धि चिराल्लोहाद् ध्मानाद्वा चिरकालत: ।
विनिर्यास: स निर्दिष्ट: पतङ्गीरागसंज्ञक ।। 52 ।।

Under the influence of drugs, the metals are made to obtain the colour of gold. This colour is then separated from the metal by subjecting it to intensive fire or by any other method. Such a separated colour is called *patangiraga*.

Avapa

द्रुते द्रव्यान्तरक्षेपो लोहाद्ये क्रियते हि य: ।
स आवाप: प्रतीवापस्तदेवाऽऽच्छादनं मतम् ।। 53 ।।

It is a process in which any other substance are put into the liquefied metals etc. It is also called *prativapa* or *acchadana*.

Abhisheka

द्रुते वह्निस्थिते लोहे विरम्याष्टनिमेषकम् ।
सलिलस्य परिक्षेप: सोऽभिषेक इति स्मृत: ।। 54 ।।

Abhisheka is a process in which metals are melted and let it stand for eight *nimesha* (seconds) and water is poured over it.

Nirvapa

तप्तस्याप्सु विनिक्षेपो निर्वाप: स्नपनञ्च तत् ।। 55 ।।

Substances like metals are heated in fire and immersed in the liquids like water etc. Such a process is named as *nirvapa* or *snapana*.

प्रतीवापादिकं कार्यं द्रुते लोहे सुनिर्मले ।। 56 ।।

The process like *prativapa*, *abhisheka* etc. are carried out, only when the metals are melted properly and become clear.

Shuddhavarta

यदा हुताशो दीप्तार्चि: शुक्लोत्थानसमन्वित: ।
शुद्धावर्तस्तदा ज्ञेय: स काल: सत्त्वनिर्गमे ।। 57 ।।

The flames are called *shuddhavarta*, which occur when the fire burns intensively. Such a condition is an indication of retrieving the *sattva* of the minerals.

Bijavarta

द्राव्यद्रव्यनिभा ज्वाला दृश्यते धमने यदा ।
द्रावस्योन्मुखता सेयं बीजावर्त: स उच्यते ।। 58 ।।

Whenever a metal is heated in the fire, in order to melt it, a specific coloured flame, pertaining to the colour of the metal, is seen in the fire. It is an indication of melting of that metal. Such a condition is called *bijavarta*.

Svangashita and Bahihshita

वह्निस्थमेव शीतं यत्तदुक्तं स्वाङ्गशीतलम् ।
अग्नेराकृष्य शीतं यत्तद्बहि:शीतमुच्यते ।। 59 ।।

While heating a substance on fire, if the substance is let to cool on its own accord (keeping it on fire until the fire extinguishes on its own accord, after burning completely), then such a condition is called *svangashita*. However, the substance (or container) if removed from the fire and cooled outside, it is called *bahihshita*.

SAMSKARAS OF PARADA

Svedana of Parada

क्षाराम्लैरौषधैर्वाऽपि दोलायन्त्रे स्थितस्य हि।
पचनं स्वेदनाख्यं स्यान्मलशैथिल्यकारकम्।। 60।।

Svedana is the process in which *parada* is boiled in *kshara* (alkalies), *amla* (sour substances) etc. or in the juice or decoction of any other drugs in *dolayantra*. This process helps in loosening the *malas* (blemishes) present in the *parada*.

Mardana of Parada

उदितैरौषधैः सार्धं सर्वाम्लैः काञ्जिकैरपि।
पेषणं मर्दनाख्यं स्याद् बहिर्मलविनाशनम्।। 61।।

Grinding *parada* along with various drugs used for *mardana* process (which are told later), adding all types of sour substances, and *kanji*, is called the operation of *mardana*. The external *malas* (blemishes) are destroyed by this process.

Murcchana of Parada

मर्दनाऽऽदिष्टभैषज्यैर्नष्टपिष्टत्वकारकम्।
तन्मूर्च्छनं हि वङ्गादिभूजकञ्चुकनाशनम्।। 62।।

Parada is ground with the drugs used in *mardana* process to bring about a condition called *nashta pishta* (homogeneous paste). This process is known as *murcchana*, which helps in removing the *doshas* (blemishes) like *naga* and *vanga* and also *bhomija* as well as *kanchuka* type of *doshas*.

Utthapana of Parada

स्वेदातपादियोगेन स्वरूपापादनं हि यत्।
तदुत्थापनमित्युक्तं मूर्च्छाव्यापत्तिनाशनम्।। 63।।

The *parada* which has attained the state of *nashtapishtattva* in *murcchana samskara* is brought back to its original state by the help of *svedana* (boiling) in *dolayantra* or by keeping it under the sunrays or by any other process. This retrieval of *parada* is called *utthapana samskara*. This helps in eradicating the unwanted qualities acquired by *parada* during the process of *murcchana*.

Characteristics of Nashtapishta

स्वरूपस्य विनाशेन पिष्टत्वाद् बन्धनं हि यत्।
विद्वद्भिर्निर्जितः सूतो नष्टपिष्टिः स उच्यते।। 64।।

Nashta pishta is the condition, which is accquired by the *parada*, when it become like fine paste, loosing its original state (like mobility etc). This is achieved by grinding *parada* with various drugs.

Patana of Parada

उक्तौषधैर्मर्दितपारदस्य यन्त्रस्थितस्योर्ध्वमधश्च तिर्यक्।
निर्यातनं पातनसंज्ञमुक्तं वङ्गाहिसम्पर्कजकञ्चुकघ्नम्।। 65।।

The *parada* is ground with specific drugs (which are given in later chapters) and it is subjected to *patana* (sublimation) in upward, downward and oblique (*urdhva, adhah* and *tiryak*) direction by heating in *urdhvapatana, adhahpatana* and *tiryakpatana yantra*, respectively. This process is called *patana*. *Naga* and *vanga doshas*, which are artificially mixed (adulterated in *parada*) are eradicated with the help of this *patana samskara*.

Rodhana of Parada

जलसैन्धवयुक्तस्य रसस्य दिवसत्रयम्।
स्थितिरास्थापनी कुम्भे याऽसौ रोधनमुच्यते।। 66।।

Saindhava lavana is taken in an earthen pot with water in the form of solution and *parada* is kept in it for three days. This process is known as *rodhana*, by which *parada* gains potency.

Niyamana of Parada

रोधनाल्लब्धवीर्यस्य चपलत्वनिवृत्तये ।
क्रियते पारदे स्वेद: प्रोक्तं नियमनं हि तत् ।। 67 ।।

Due to the above *rodhana* process, *parada* possesses potency but regains its mobility. In order to remove this mobility, *parada* is subjected to *svedana* process again. This operation is called *niyamana.*

Dipana of Parada

धातुपाषाणमूलाद्यै: संयुक्तो घटमध्यग: ।
ग्रासार्थं त्रिदिनं स्वेदो दीपनं तन्मतं बुधै: ।। 68 ।।

Parada is processed by *svedana* (boiling) in *kanji* along with metals, minerals and various medicinal substances in *dolayantra* for three days. It is called *dipana samskara.* This enhances the power of *parada*, of consuming the minerals like *abhraka* etc.

Grasamana of Parada

इयन्मानस्य सूतस्य भोज्यद्रव्यात्मिका मिति: ।
इयतीत्युच्यते याऽसौ ग्रासमानं समीरितम् ।। 69 ।।

Grasamana is the process of ascertaining the quantum of the *grasa*, taken by a certain quantity of the *parada.*

Stages of Jarana

ग्रासस्य चारणं गर्भे द्रावणं जारणं तथा ।
इति त्रिरूपा निर्दिष्टा जारणा वरवार्तिकै: ।। 70 ।।
ग्रास: पिण्ड: परीणामस्तिस्रश्चाख्या: परा: पुन: ।
समुखा निर्मुखा चेति जारणा द्विविधा पुन: ।। 71 ।।

The operation of *jarana* is performed in three stages viz., the *charana* of the *grasa* (putting the *grasa* in *parada*), *dravana* inside *parada* (liquefication of the *grasa* in *parada*) and *jarana* of *grasa* (merging of *grasa* in *parada).*

The above three stages are also called *grasa*, *pinda* and *parinama* respectively. Putting *grasa* in *parada* is *grasa*; its becoming *pinda* (ball) within the *parada* is *pinda* and its complete merging within *parada* is *parinama.*

Jarana is again classified into two, i.e. *nirmukha jarana* and *samukha jarana.*

Nirmukha Jarana

निर्मुखा जारणा प्रोक्ता बीजाऽऽदानेन भागत: ।। 72 ।।

Without making the *mukha* (opening) in *parada*, if *bija* (*grasa*) is put into it, it is called *nirmukha jarana.*

Characteristics of Bija

शुद्धं स्वर्णञ्च रूप्यञ्च बीजमित्यभिधीयते ।। 73 ।।

A pure *svarna* as well as pure *rajata* which are put into *parada* are called *bija.*

Characteristics of Mukha

चतु:षष्ट्यंशतो बीजप्रक्षेपो मुखमुच्यते ।
एवं कृतो रसो ग्रासलोलुपो मुखवान् भवेत् ।। 74 ।।
कठिनान्यपि लोहानि क्षमो भवति भक्षितुम् ।
इयं हि समुखा प्रोक्ता जारणा मृगचारिणा ।। 75 ।।

The process of adding the *bija*, i.e. pure *svarna* or pure *rajata* to 1/64th part (*of parada*) is called *mukha.* This makes *parada* *grasalolupa* (longing for *grasa*). Such a *parada* is called *mukhavan* (possessed of mouth), which is capable of accepting (consuming) even very hard metals. Such type of *jarana* is named as *samukha jarana* by a *rasasiddha* called Mrigachari.

Characteristics of Rakshasavaktra Parada

दिव्यौषधिसमायोगात्स्थित: प्रकटकोष्ठिषु ।
भुञ्जीताखिललोहाद्यं योऽसौ राक्षसवक्त्रवान् ।। 76 ।।

The *parada* which is processed by devine herbal drugs and kept in the open *koshthi* (furnace), in an open crucible, can consume all kinds of substances like metals etc. Such a *parada* is called having *rakshasa-vaktra* (demonic mouth).

Charana

रसस्य जठरे ग्रासक्षेपणं चारणा मता।। 77 ।।

The process of adding *grasa* into the (womb of) *parada* is called *charana*.

Garbhadruti

ग्रस्तस्य द्रावणं गर्भे गर्भद्रुतिरुदाहृता।। 78 ।।

Liquefying the substance which is given as *grasa* inside (in the womb of) the *parada* alone, is called *garbhadruti*.

Bahyadruti

बहिरेव द्रुतं कृत्वा घनसत्त्वादिकं खलु।
जारणाय रसेन्द्रस्य सा बाह्यद्रुतिरुच्यते।। 79 ।।

Bahyadruti is the process of liquefying the substances like *sattva* of *abhraka* etc. (which is to be given as *grasa*) without (separately) putting in the *parada*.

Characteristics of Druti

औषधाध्मानयोगेन लोहधात्वादिकं तथा।
सन्तिष्ठते द्रवाकारं सा द्रुतिः परिकीर्तिता।। 80 ।।
निर्लेपत्वं द्रुतत्वं च तेजस्त्वं लघुता तथा।
असंयोगश्च सूतेन पञ्चधा द्रुतिलक्षणम्।। 81 ।।

The metals like *svarna* etc. and such other minerals remain in the form of liquid due to processing in various specific drugs and also by blowing in intensive fire. Such liquefied material is called the *druti* of the original metal. Not sticking to the vessel, remaining in the form of liquid, being lustrous, being light and readily mixing with the *parada* are the five specific characteristics of *druti*.

Characteristics of Jarana

द्रुतग्रासपरीणामो बिडयन्त्रादियोगतः।
जारणेत्युच्यते तस्याः प्रकाराः सन्ति कोटिशः।। 82 ।।

When the grasa, with the help of *bidayaga* and various instruments, becomes one with the *parada*, after readily mixing, this process is called *jarana*. There are millions of varieties in it.

Characteristics of Bida

क्षारैरम्लैश्च गन्धाद्यैर्मूत्रैश्च पटुभिस्तथा।
रसग्रासस्य जीर्णार्थं तद्बिडं परिकीर्तितम्।। 83 ।।

In order to digest the *grasa* put into the *parada*, a special kind of preparation called *bida* is used which is prepared by using drugs like *ksharas* (e.g. *yavakshara*), *amlas* (e.g. *jambira*), *khanijas*-minerals (e.g. *gandhaka*), urines (e.g. cows urine) etc.

Ranjana

सुसिद्धबीजधात्वादिजारणेन रसस्य हि।
पीतादिरागजननं रञ्जनं परिकीर्त्तितम्।। 84 ।।

The *bija* (like *svarna, rajata* etc.) which is processed by special operations, is subjected to *jarana* in *parada* and imparted with the colours such as yellow etc. This process is called *ranjana*.

Sarana

सूते सतैलयन्त्रस्थे स्वर्णादिक्षेपणं हि यत्।
वेधाधिक्यकरं लोहे सारणा सा प्रकीर्त्तिता।। 85 ।।

Parada is taken in a *yantra* filled with oil (in a crucible) and

prakshepa (adding) of metals like *svarna* etc. is given, which is called *sarana*. This enhances the potency of the *parada* in the process of *vedha* (converting the lower metals into gold etc.) of various metals.

Characteristics of Vedha

व्यवायिभेषजोपेतो द्रव्ये क्षिप्तो रसः खलु।
वेध इत्युच्यते तज्ज्ञैः स चानेकविधः स्मृतः।। 86।।

According to scholars *vedha* is a process in which the *parada* processed and prepared with the help of drugs which are *vyavayi* (capable of assimilating very quickly) in nature, is added into the metals like iron etc. This *vedha* is of many kinds.

Varieties of Vedha

लेपः क्षेपश्च कुन्तश्च धूमाख्यः शब्दसंज्ञकः।। 87।।

There are five kinds of *vedha, viz. lepavedha, kshepavedha, kuntavedha, dhumavedha* and *shabdavedha.*

Lepavedha

लेपेन कुरुते लोहं स्वर्णं वा रजतं तथा।
लेपवेधः स विज्ञेयः पुटमत्र च सौकरम्।। 88।।

Lepavedha is a process of transforming the metals into *svarna* and *rajata* by smearing the processed *parada* on them. In order to smear the *parada*, it is necessary to use the *saukara puta* (*varaha puta* or heat of strong sun rays).

Kshepavedha

प्रक्षेपणं द्रुते वेधः स्यात्क्षेपसंज्ञितः।। 89।।

The process of transforming the metals into *svarna* etc. by adding processed *parada* in these liquefied metals, is called *kshepavedha.*

Kuntavedha

सन्दंशधृतसूतेन द्रुतद्रव्याहतिश्च या।
सुवर्णत्वादिकरणी कुन्तवेधः स उच्यते।। 90।।

Little amount of *parada* is held with the help of forceps and added into the liquefied metals and brought up again, by which the metals transform into '*svarna*' etc. This process is called *kuntavedha.*

Dhumavedha

वह्नौ धूमायमानेऽन्तः प्रक्षिप्तरसधूमतः।
स्वर्णाद्यापादनं लोहे धूमवेधः स उच्यते।। 91।।

The processed *parada* is heated and its vapours should be brought into contact with metals like *loha* etc., by which, they will turn into *svarna*, *roupya* etc. This porcess is known as *dhumavedha.*

Shabdavedha

मुखस्थितरसेनाल्पलोहस्य धमनात्खलु।
स्वर्णरूप्यत्वजननं शब्दवेधः स कीर्त्तितः।। 92।।

The metals which are liquefied in the crucibles are blown with the mouth keeping the processed *parada* in the mouth. This enables the transformation of metals into gold and silver. This process is called *shabdavedha.*

Udghatana

सिद्धद्रव्यस्य सूतेन कालुष्यादिनिवारणम्।
प्रकाशनश्च वर्णस्य तदुद्घाटनमीरितम्।। 93।।

The pollution of any substance, which is processed and prepared by the processed *parada*, is eradicated and the original colour of that substance is excelled by an operation, which is known as *udghatana.*

Svedana

क्षाराम्लैरौषधैः सार्धं भाण्डं रुद्ध्वाऽतियत्नतः।
भूमौ निखन्यते यत्नात्स्वेदनं सम्प्रकीर्त्तितम्।। 94।।

Svedana is the process in which the *parada* is kept along with *kshara* (alkalies) and *amlas* (acidic substances) in a closed vessel, which is kept burried inside the earth.

Samnyasa

रसस्यौषधयुक्तस्य भाण्डरुद्धस्य यत्नतः।
मन्दाग्नियुतचुल्ल्यन्तः क्षेपः संन्यास उच्यते।। 95।।

Parada is mixed with medicinal substances in a vessel, the mouth of which is sealed properly. The vessel is then heated on mild fire. This process is known as *samnyasa.*

द्वावेतौ स्वेदसंन्यासौ रसराजस्य निश्चितम्।
गुणप्रभावजनकौ शीघ्रव्याप्तिकरौ तथा।। 96।।

The processes viz., *svedana* and *samnyasa* described above, are certainly able to enhance the qualities as well as the potency of the *parada* and can be made to absorb throughout the body, very quickly.

Benefits of Paribhasha

रसनिगममहाब्धेः सोमदेवः समन्तात् स्फुटतरपरिभाषानामरत्नानि हृत्वा।
व्यरचयदतियत्नात्तैरिमां कण्ठमालां कलयतु भिषगग्र्यो मण्डनार्थं सभायाम्।। 97।।

Somadeva, the scholar in Rasashastra has picked up, with much efforts, the jewels from the ocean of the Rasashastra, the jewels called *paribhasha* which are very valuable and explicit and he has prepared a necklace out of them. In order of attain the respect and superiority in the congregation of *rasasiddhas*, a physician practicing *rasavidya* should always wear this necklace.

भवेत्पठितवारोऽयमध्यायो रसवादिना।
रसकर्माणि कुर्वाणो न स मुह्यति कुत्रचित्।। 98।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ
रसरत्नसमुच्चये परिभाषाकथनं नाम अष्टमोऽध्यायः।

The physician, who is practising the mercurial medicine, must repeatedly read this chapter and learn it by heart. This certainly helps in avoiding any mistakes possibly occur during mercurial operations.

This completes the eighth chapter called *Paribhasha Kathana* in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

9
Yantra (Instruments)

अथ यन्त्राणि वक्ष्यन्ते रसतन्त्राण्यशेषतः।
समालोच्य समासेन सोमदेवेन साम्प्रतम्।। 1।।

Shri Somadeva, the *rasasiddha* has described the *yantra* or instruments, after referring all the relevant texts.

Definition of Yantra

स्वेदादिकर्मनिर्मातुं वार्तिकेन्द्रैः प्रयत्नतः।
यन्त्र्यते पारदो यस्मात् तस्माद्यन्त्रमिति स्मृतम्।। 2।।

Yantra are the instruments which are used for the difficult operations of controlling *parada* by performing the processes like *svedana* (boiling) etc.

Dola Yantra

द्रवद्रव्येण भाण्डस्य पूरितार्धोदकस्य च।
मुखस्योभयतो द्वारद्वयं कृत्वा प्रयत्नतः।। 3।।
तयोस्तु निक्षिपेद्दण्डं तन्मध्ये रसपोटलीम्।
बद्ध्वा तु स्वेदयेदेतद्दोलायन्त्रमिति स्मृतम्।। 4।।

An earthen vessel is taken with two holes at the opposite sides of its edge and filled with prescribed liquid. A rod is inserted through these hole across the mouth of the vessel. The mineral substance undergoing the process of *svedana*, are tied into the *potali* (bundle) and suspended with the help of a thread into the liquid, so that it is completely immersed. The other end of the

thread is tied to the rod. The pot is then kept on the stove and heated. This insturment is called *dolayantra.*

Svedani Yantra

साम्बुस्थालीमुखाबद्धे वस्त्रे पाक्यं निवेशयेत्।
पिधाय पच्यते यत्र स्वेदनीयन्त्रमुच्यते।। 5।।

A vessel containing water (specific liquid) is covered on the mouth, with a strong cloth and secured. Upon this cloth the mineral substance is placed and the vessel is heated. It is called *sveadani yantra.*

Patana Yantra

अष्टाङ्गुलपरीणाहमानाहेन दशाङ्गुलम्।
चतुरङ्गुलकोत्सेधं तोयाधारं गलादधः।। 6।।
अधोभाण्डे मुखं तस्य भाण्डस्योपरिवर्त्तिनः।
षोडशाङ्गुलविस्तीर्णपृष्ठस्यास्ये प्रवेशयेत्।। 7।।
पार्श्वयोर्महिषीक्षीरचूर्णमण्डूरफाणितैः।
लिप्त्वा विशोषयेत्सन्धिं जलाधारे जलं क्षिपेत्।
चुल्ल्यामारोपयेद्यत्नात् पातनायन्त्रमुच्यते।। 8।।

A vessel, the bottom of which is measuring sixteen *anguli* (about 12") in width (or diameter), is taken and at its outer bottom, a water container (an earthen tank which can hold water) is built which measures ten *angula* (7.5") long, eight *angula* (6") wide and four *angula* (3") high. Another vessel, the mouth of which is smaller than that of first vessel (i.e. its mouth can be inserted into the mouth of the other bigger vessel) is taken and filled with mineral substances. Upon this vessel, the bigger vessel is placed inverted, so that the mouth of the lower vessel is entered into the mouth of the upper vessel. The joining parts are sealed with the paste prepared by grinding the powders of lime, *mandura* (oxide of iron) and *phanita* in buffalo's milk. After drying and filling the water in the water container, the apparatus, which is

called *patana yantra* (*urddhva patana*) is placed on the stove for cooking.

Adhahpatana Yantra

अथोर्ध्वभाजने लिप्तस्थापितस्य जले सुधीः।
दीप्तैर्वनोपलैः कुर्यादधःपातं प्रयत्नतः।। 9।।

Two earthen vessels are taken. In the inner surface of the upper vessel, mercury with other substances are smeared and the vessel is placed upside down (so that the mouth of the lower vessel is inserted inside the mouth of the upper vessel) upon the lower vessel, which contains water. The joint is properly sealed. Then the lower vessel is burried inside the earth and cowdung cakes are spread upon the upper vessel. This is known as *adhahpatana yantra.*

Tiryakpatana Yantra

क्षिपेद्रसं घटे दीर्घे नताधोनालसंयुते।
तन्नालं निक्षिपेदन्यघटकुक्ष्यन्तरे खलु।। 10।।
तत्र रुध्वा मृदा सम्यग्वदने घटयोरथ।
अधस्ताद्रसकुम्भस्य ज्वालयेत्तीव्रपावकम्।। 11।।
इतरस्मिन्घटे तोयं प्रक्षिपेत् स्वादु शीतलम्।
तिर्यक् पातनमेतद्धि वार्तिकैरभिधीयते।। 12।।

A vessel of more height is taken and a tube is connected to its neck portion. The other end of the tube is projected into the body of another vessel, which is kept on a lower plane. After putting necessary substances in the first vessel and water in the second, the mouths of these are closed and sealed (the connecting joints of the tube too are sealed). Then, the first vessel is kept on fire and heated. The scholars of Rasashastra have named it *tiryakpatana yantra.*

Kachchapa Yantra

जलपूर्णपात्रमध्ये दत्त्वा घटखर्परं सुविस्तीर्णम्।
तदुपरि बिडमध्यगतः स्थाप्यः सूतः कृतः कोष्ठ्याम्।। 13।।
लघुलोहकटोरिकया कृतपटमृत्सन्धिलेपयाऽऽच्छाद्य।
पूर्वोक्तघटखर्परमध्यऽङ्गारैः खदिरकोलभवैः।। 14।।
स्वेदनतो मर्दनतः कच्छपयन्त्रस्थितो रसो जरति।
अग्निबलेनैव ततो गर्भे द्रवन्ति सर्वसत्त्वानि।। 15।।

A wide vessel (like that of a tub) is burried up to the neck in the earth and filled with water. Another smaller vessel (with the mouth comparatively bigger) is placed upon the first vessel so that its lower part touches the water. A crucible containing *parada* along with *bida* is placed in this vessel and covered with metal plate. The joints are sealed with muddy clothes. Then, the coal made of wood of *khadira* and *kola* is spread around the crucible and lit. After *svedana*, the *parada* is taken out after *svangashita.* This *parada* thus processed in *kachchapa yantra,* becomes hungry (*bubhukshita*) and attains the power of melting all kinds of *sattvas* and other substances, quickly.

Dipika Yantra

कच्छपयन्त्रान्तर्गतमृण्मयपीठस्थदीपिकासंस्थः।
यस्मिन्निपतति सूतः प्रोक्तं तद्दीपिकायन्त्रम्।। 16।।

Instead of a crucible in the above *kachchapa yantra,* an elongated earthen altar is constructed upon which a burning lamp is placed. In this lamp *parada* is kept and the altar and the lamp is covered by an iron vessel. The joints are sealed and heat is given as said above. This turns *parada* into *bhasma*, which is collected in the vessel.

Deki Yantra

भाण्डकण्ठादधश्छिद्रे वेणुनालं विनिक्षिपेत्।
कांस्यपात्रद्वयं कृत्वा सम्पुटं जलगर्भितम्।। 17।।

नलिकास्यं तत्र योग्यं दृढं तच्चापि कारयेत्।
युक्तद्रव्यैर्विनिक्षिप्त: पूर्वं तत्र घटे रस:।। 18।।
अग्निना तापितो नालात्तोये तस्मिन् पतत्यध:।
यावदुष्णं भवेत्सर्वं भाजनं तावदेव हि।
जायते रससन्धानं डेकीयन्त्रमितीरितम्।। 19।।

A bamboo tube is fixed at the neck portion of a vessel. Two bronze vessels are taken and one is filled with water. Another vessel is placed upon the first, upside down and the joint is cemented to prepare a *samputa*. Another end of the above tube is connected to the upper vessel of the *samputa* and connecting parts of the tube are also sealed. *Parada* and other substances are placed in the first vessel and heated intensively. The *parada* due to heat, sublimes and collects in the *samputa*. *Parada* continues to collect in the *samputa* until the vessel remains hot. This instrument is called *deki yantra*.

Jarana Yantra

लोहमूषाद्वयं कृत्वा द्वादशाङ्गुलमानत:।
ईषच्छिद्रान्वितामेकां तत्र गन्धकसंयुताम्।। 20।।
मूषायां रसयुक्तायामन्यस्यां तां प्रवेशयेत्।
तोयं स्यात्सूतकस्याध ऊर्ध्वाधो वह्निदीपनम्।। 21।।
रसोनकरसं भद्रे यत्नतो वस्त्रगालितम्।
दापयेत्प्रचुरं यत्नादाप्लाव्य रसगन्धकौ।। 22।।
स्थालिकायां पिधायोर्ध्वं स्थालीमन्यां दृढां कुरु।
सन्धिं विलेपयेद्यत्नान्मृदा वस्त्रेण चैव हि।। 23।।
स्थाल्यन्तरे कपोताख्यं पुटं कर्षाग्निमेव सदा।
यन्त्रस्याध: करीषाग्निं दद्यात्तीव्राग्निमेव वा।। 24।।
एवं तु त्रिदिनं कुर्यात्ततो यन्त्रं विमोचयेत्।
तप्तोदके तप्तचुल्ल्यां न कुर्याच्छीतलां क्रियाम्।। 25।।
न तत्र क्षीयते सूतो न च गच्छति कुत्रचित्।
अनेन च क्रमेणैव कुर्याद् गन्धकजारणम्।। 26।।

Two iron vessels, with twelve *anguli* diameter are taken. One is filled with *parada* and another with *gandhaka*. Both are added with juice of *lashuna*. A small hole is made at the bottom of the vessel containing *gandhaka* and it is placed upon the vessel containing *parada*. These two are kept inside a big water container so that the vessel containing *parada* submerges half in the water. Mouth of this container is closed with another vessel and the joints are sealed. The powder of cowdung cake equal to the amount needed for *kapota puta* is taken in this upper vessel. Then the whole apparatus is kept on the stove. Thus, the fire is ignited from the above as well as below and heat is given for three days. Afterwards the apparatus is dismantled. However, it is not done so until the water in the container remains hot as well as the fire is still burning. At the same time, fire is not extinguished by sprinkling cold water. Only after selfcooling, the *parada* is taken out. This restricts the loss of *parada*. This *yantra* which is called *jarana yantra* is used for the *jarana* of *gandhaka*, in the way described above.

Vidyadhara Yantra

यन्त्रं विद्याधरं ज्ञेयं स्थालीद्वितयसम्पुटात्।
चुल्लीं चतुर्मुखीं कृत्वा यन्त्रभाण्डं निवेशयेत्।। 27।।
तत्रौषधं विनिक्षिप्य निरुन्ध्याद्भाण्डकाननम्।
यन्त्रं विद्याधरं नाम तन्त्रज्ञै: परिकीर्त्तितम्।। 28।।

A *samputa* which is prepared by joining two vessels is called *vidyadhara yantra*. To use this *yantra*, a suitable four projected stove is constructed in accordance with the size and shape of the vessels. Actually a vessel is kept on the stove and another vessel is placed upon that, the joints being sealed. This *yantra* is named by the scholars of Rasatantra, as *vidyadhara yantra*.

Somanala Yantra

ऊर्ध्वं वह्निरधश्चापो मध्ये तु रससङ्ग्रह:।
सोमानलमिदं प्रोक्तं जारयेद् गगनादिकम्।। 29।।

An apparatus is constructed in which the fire is above the *yantra*, water is below and the *parada* along with medicinal substances, is in the middle. This *yantra* is called *somanala yantra*. It is useful in the *jarana* of *abhraka* and such other substances.

Garbha Yantra

गर्भयन्त्रं प्रवक्ष्यामि पिष्टिकाभस्मकारकम्।
चतुरङ्गुलदीर्घाञ्च द्व्यङ्गुलोन्मितविस्तराम्।। 30।।
मृण्मयीं सुदृढां मूषां वर्तुलं कारयेन्मुखम्।
लवणाद्विंशतिर्भागा भाग एकस्तु गुग्गुलोः।। 31।।
सुश्लक्ष्णं पेषयित्वा तु वारं वारं पुनः पुनः।
मूषालेपं दृढं कृत्वा लवणार्द्धमृदम्बुभिः।। 32।।
कर्षेत् तुषाग्निना भूमौ स्वेदयेन्मृदु मानवित्।
अहोरात्रं त्रिरात्रं वा रसेन्द्रो भस्मतां व्रजेत्।। 33।।

Now, the *garbha yantra* which is useful in the preparation of *pisti* of *parada* (or preparing *bhasma* after *pisti*) as well as the *bhasma* of various other minerals, is described.

A strong *musha* (crucible) measuring four *angula* in length and three *angula* in breadth, is prepared with the help of mud. The outer surface of this crucible is then smeared with the *pisti*, prepared by twenty parts of *saindhava lavana*, one part of *guggulu* and ten parts of mud. When dried up, once again, another layer of this paste is smeared so that the crucible becomes more strong. Then, *tusha* (paddy husk) is filled in a small pit in the earth and the crucible in which *parada pishti* is kept, is placed and mild fire is given. *Parada bhasma* is obtained by heating this for twenty four hours on intensive fire or three days on mild heat.

Hamsapaka Yantra

खर्परं सिकतापूर्णं कृत्वा तस्योपरि न्यसेत्।
अपरं खर्परं तत्र शनैर्मृद्वग्निना पचेत्।। 34।।
पञ्चक्षारैस्तथा मूत्रैर्लवणञ्च विडं तथा।
हंसपाकं समाख्यातं यन्त्रं तद्वार्त्तिकोत्तमैः।। 35।।

A large *kharpara* (cauldron) is filled with sand and another smaller vessel is kept over it. In this, *panchakshara* (five *ksharas* prepared by *palasha*, *mushkaka*, *yava*, *svarjika* and *tila*), *astamutra* (urines of buffalo, goat, sheep, camel, cow, donkey, elephant and horse) and *pancha lavana* (five salts called *sauvarchala*, *saindhava*, *bida*, *udbhida* and *samudra*) are taken and heated to prepare the *bida*. The scientists of Rasashastra have called this *hamsapaka yantra*.

Valuka Yantra

सरसां गूढवक्त्रां मृद्वस्त्राङ्गुलघनावृताम्।
शोषितां काचकलशीं त्रिषु भागेषु पूरयेत्।। 36।।
भाण्डे वितस्तिगम्भीरे वालुकासु प्रतिष्ठिताम्।
तद्भाण्डं पूरयेत् त्रिभिरन्याभिरवगुण्ठयेत्।। 37।।
भाण्डवक्त्रं मणिकया सन्धिं लिम्पेन्मृदा पचेत्।
चुल्ल्यां तृणस्य चादाहान्मणिकापृष्ठवर्त्तिनः।। 38।।
एतद्धि वालुकायन्त्रं तद्यन्त्रं लवणाश्रयम्।
पञ्चाढवालुकापूर्णभाण्डे निक्षिप्य यत्नतः।
पच्यते रसगोलाद्यं वालुकायन्त्रमीरितम्।। 39।।

A strong (elongated) bottle, the mouth of which is constricted a little, is taken and the outer part is covered one inch with muddy cloth (leaving the mouth and neck portions). After drying, *parada* with drugs is filled 3/4 in this bottle. A large earthen tub is taken and filled with the sand in the midst of which, the above bottle is burried, leaving the neck protion above. Then a *sharava* is covered upon the mouth of the tub and joints sealed. The apparatus is placed upon the fire and heat is given in the order of mild, medium and intensive. The heating is continued until the dried grass which is kept on the *sharava* is burnt by heat. Such an apparatus is called *valuka yantra*. If, instead of sand, salt is used in this, it is known as *lavana yantra*.

In total, five *adhaka* (one *adhaka* is equal to two hundred fifty *tola* or 2.75 kg.) of sand is to be taken in the above tub, in

the midst of which the bottle or crucible containing *parada*, kept with other drugs, is placed.

Lavana Yantra I

एवं लवणनिक्षेपात् प्रोक्तं लवणयन्त्रकम् ।। 40 ।।

If the salt, instead of sand is used in the above said apparatus, it is called *lavana yantra.*

Lavana Yantra II

अन्तःकृतरसालेपताम्रपात्रमुखस्य च ।
लिप्त्वा मृल्लवणेनैव सन्धिं भाण्डतलस्य च ।। 41 ।।
तद्भाण्डं पटुनाऽऽपूर्य क्षारैर्वा पूर्ववत्पचेत् ।
एवं लवणयन्त्रं स्याद्रसकर्मणि शस्यते ।। 42 ।।

Parada with other drugs is smeared inside a copper vessel and the vessel is placed upside down in another big wide vessel and joining parts are well sealed with the help of a paste prepared with clay and salt water. The salt or *alkali* (*kshara*) is filled in the big vessel and heated on the fire, as in the process of *valuka yantra.* This apparatus is called *lavana yantra*, which is considered to be very useful in mercurial operations.

Nalika Yantra

लोहनालगतं सूतं भाण्डे लवणपूरिते ।
निरुद्धं विपचेत्प्राग्वन्नालिकायन्त्रमीरितम् ।। 43 ।।

A cylindrical iron tube is filled with *parada* and other drugs, and closed either way. Then, it is burried inside the *lavana* (salt) taken in a vessel and heated. This *yantra* is named as *nalika yantra.*

Bhudhara Yantra

वालुकागूढसर्वाङ्गां गर्ते मूषां रसान्विताम् ।
दीप्तोत्पलैः संवृणुयाद्यन्त्रं तद्भूधराह्वयम् ।। 44 ।।

A pit is dug in the earth and sand is spread in it. Then the crucible, which contians *parada* along with drugs with mouth sealed is kept in this pit. Sand is spread all over and the cowdung cakes are placed upon it and ignited. This *yantra* is called *bhudhara yantra.*

Puta Yantra

शरावसम्पुटान्तःस्थं करीषेष्वग्निमानवित् ।
पचेच्चुल्ल्यां द्वियामं वा रसं तत्पुटयन्त्रकम् ।। 45 ।।

A *samputa* is prepared by taking two *sharavas* (earthen basins), in which *parada* is already kept. Then this *samputa* is kept in the midst of cowdung cakes, the numbers of which are decided by the scholars, or it is kept on the stove and heated for two *prahara* (6 hrs.). This *yantra* is called *puta yantra.*

Koshti Yantra

षोडशाङ्गुलविस्तीर्णं हस्तमात्रायतं समम् ।
धातुसत्त्वनिपातार्थं कोष्ठीयन्त्रमिति स्मृतम् ।। 46 ।।
परिपूर्णं दृढाङ्गारैरधोवातेन कोष्ठके ।
मात्रया ज्वालमार्गेण ज्वालयेच्च हुताशनम् ।। 47 ।।

It is an apparatus which consists of (the earthen) walls measuring sixteen *anguli* long, equally wide and having height equal to one *hasta* (about 18 inches). This is known as *koshti yantra.*

(It is filled with coal along with the mineral substances and *agni* is given in a measured way).

Valabhi Yantra

यत्र लोहमये पात्रे पार्श्वयोर्वलयद्वयम् ।
तादृक् स्वल्पतरं पात्रं वलयप्रोतकोष्ठकम् ।। 48 ।।
पूर्वपात्रोपरि न्यस्य स्वल्पपात्रे परिक्षिपेत् ।
रसं सम्मूर्च्छितं स्थूलपात्रमापूर्य काञ्जिकैः ।। 49 ।।

द्वियामं स्वेदयेदेवं रसोत्थापनहेतवे।
एतत्स्याद्वलभीयन्त्रं रसे षाड्गुण्यकारकम्।
सूक्ष्मकान्तमये पात्रे रसः स्याद् गुणवत्तरः।। 50।।

A big iron vessel is taken, to the neck portion of which, two iron rings at the opposite ends are fixed. Another smaller iron vessel (the diameter of the body being smaller but that of mouth is similar), is also furnished with two rings. *Murchchita parada* is taken in this vessel and it is inserted into the first vessel containing *kanji* (certain portion of the small vessel should be immersed in the *kanji*). The rings of two vessels are then tied together and the apparatus is kept on fire. If heated for two *prahara* (6 hours), the *parada* becomes richer by six qualities (*vidya, vitarka, vignana, tatparata, smriti* and *kriyas* are six qualities). This apparatus is called *valabhi yantra*. It can render more beneficial qualities to *parada*, if this *yantra* is constructed with *kantaloha* (magnetic iron), instead of mere iron.

Palika Yantra

चषकं वर्तुलं लौहं विनताग्रोर्ध्वदण्डकम्।
एतद्धि पालिकायन्त्रं बलिजारणहेतवे।। 51।।

A *chashaka* (cup or a small concave vessel) of iron is fixed with a rod and the other end of the rod is bent outside. This *yantra* is known as *palika yantra*, which is useful in the *jarana* of *gandhaka*.

Ghata Yantra

चतुष्प्रस्थजलाधारश्चतुरङ्गुलिकाऽऽननः।
घटयन्त्रमिदं प्रोक्तं तदाप्यायनकं स्मृतम्।। 52।।

A pot which can contain four *prastha* (two hundred fifty six *tola* or about 3 liters) of water and having four *angula* wide mouth is called *ghata yantra* or *apyayana yantra* (which nourishes the *parada*).

Ishtika Yantra

विधाय वर्तुलं गर्तं मल्लमत्र निधाय च।
विनिधायेष्टिकां तत्र मध्यगर्तवतीं शुभाम्।। 53।।
गर्तस्य परितः कुर्यात्पालिकामङ्गुलोच्छ्रयाम्।
गर्ते सूतं विनिक्षिप्य गर्तास्ये वसनं क्षिपेत्।। 54।।
निक्षिपेद्गन्धकं तत्र मल्लेनाऽऽस्यं निरुद्ध्य च।
मल्लपालिकयोर्मध्ये मृदा सम्यङ् निरुध्य च।। 55।।
वनोत्पलैः पुटं देयं कपोताख्यं न चाधिकम्।
इष्टिकायन्त्रमेतत्स्याद् गन्धकं तेन जारयेत्।। 56।।

A round pit is dug in the earth and a *sharava* is placed inside it. Then a brick which has a hole in the middle, is kept over the *sharava*. A *pali* (cylindrical wall) is constructed with clay around that hole on the surface of the brick. *Parada* is put inside the hole and a cloth is spread upon the *pali*. *Gandhaka* is spread on the cloth and *sharava* is placed properly so that it is adjusted to the rim of the *pali* and joints are sealed. On the concave surface of the *sharava*, cowdung cakes equal to the numbers needed for *kapota puta* are placed and ignited and heat is given. It is called *ishtika yantra* and is useful in *gandhaka jarana*.

Hingulakrishta Vidyadhara Yantra

स्थालिकोपरि विन्यस्य स्थालीं सम्यङ्निरुध्य च।
ऊर्ध्वस्थाल्यां जलं क्षिप्त्वा वह्निं प्रज्वालयेदधः।
एतद्विद्याधरं यन्त्रं हिङ्गुलाकृष्टिहेतवे।। 57।।

A vessel (inside which *hingula* is smeared) is taken and another vessel is placed (mouth upwards) upon it and filled with water. The joining portions of the vessels are sealed. This *yantra* is then placed upon fire and heated. It is called *vidyadhara yantra* which is used for extracting *parada* from the *hingula*.

Damaru Yantra

यन्त्रस्थाल्युपरि स्थालीं न्युब्जां दत्त्वा निरुन्धयेत्।
यन्त्रं डमरुकाख्यं तद्रसभस्मकृते हितम्।। 58।।

Two earthen vessels are joined at their mouth portions and sealed properly with clayed cloth. It is known a *damaru yantra*, used for the preperation of *bhasma* of *parada*.

Nabhi Yantra

मल्लमध्ये चेरद्गर्तं तत्र सूतं सगन्धकम्।
गर्तस्य परितः कुड्यं प्रकुर्यादङ्गुलोच्छ्रितम्।। 59।।
ततश्चाऽऽच्छादयेत्सम्यग्गोस्तनाकारमूषया।
सम्यक् तोयमृदा रुद्ध्वा सम्यगत्रोच्यमानया।। 60।।
ततो जलं विनिक्षिप्य वह्निं प्रज्वालयेदधः।
नाभियन्त्रमिदं प्रोक्तं नन्दिना सर्ववेदिना।
अनेन जीर्यते सूतो निर्धूमः शुद्धगन्धकः।। 61।।

A big *sharava,* in the bottom of which a concave pit is already existed, containing *parada* with *gandhaka* is taken. A *pali* (cylindrical wall) is constructed around this pit and dried. A *gostani musha* (crucible in the shape of *udder* of cow) is placed upon the *pali* so that the rims of both *pali* and crucible are joined properly. This joint is then sealed properly with the help of *toyamrittika.* When it is dried up, the *sharava* is filled with water and placed upon the stove. This *yantra* which is described by a Rasashastra scholar Nandi, is called *nabhi yantra* and is useful in the *nirdhuma* (smokeless) *jarana* process of *parada* and *gandhaka.*

Toyamrittika

लेहवत्कृतबब्बूलक्काथेन परिमर्दितम्।
जीर्णकिट्टरजः सूक्ष्मं गुडचूर्णसमन्वितम्।
इयं हि जलमृत्प्रोक्ता दुर्भेद्या सलिलैः खलु।। 62।।

The finely powdered *mandura* (oxide of iron) is mixed with equal quantity of *guda* (jaggery) and *chuna* (lime). This mixture is vigorously ground in the semisolid *quatha* (decoction) of *babbula* (the decoction is boiled until the semisolid sticky material is available–*rasakriya*). This paste like substance is known as

toyamrittika or *jalamrittika* which is used for sealing the joints. This make the joints water proof.

Vahnimrittika

खटिकापटुकिट्टैश्च महिषीदुग्धमर्दितैः।
वह्निमृत्स्ना भवेद्घोरवह्नितापसहा खलु।। 63।।
एतया मृत्स्नया रुद्धो न गन्तुं क्षमते रसः।
विदग्धवनिताप्रौढप्रेम्णा रुद्धः पुमानिव।। 64।।
नन्दी नागार्जुनश्चैव ब्रह्मज्योतिर्मुनीश्वरः।
वेत्ति श्रीसोमदेवश्चै नापरः पृथिवीतले।। 65।।

The fine powder of *khatika* (chalk), salt, and *mandura* in equal quantities are ground in buffalo's milk. This paste is called *vahnimrittika* which can sustain very intensive heat of the fire. As a man cannot disentangle himself from the grip of matured love of a sensuous woman, in the same way *parada* cannot escape from the crucible, which is sealed with the help of such *vahnimrittika*, even under the impact of intensive fire. Nobody has the knowledge of the power this *vahnimrittika*, except the Rasashastra scholars like Nandi, Nagarjuna, Brahmajyoti, Munishvara and Shri Somadeva.

Grasta Yantra

मूषां मूषोदराविष्टामाद्यन्तसमवर्तुलाम्।
चिपिटां च तले प्रोक्तं ग्रस्तयन्त्रं मनीषिभिः।
सूतेन्द्ररन्धणार्थं हि रसविद्भिरुदीरितम्।। 66।।

A *musha* (crucible) is prepared, which is cylindrical, elongated and flat at the bottom. Another similar *musha*, but little smaller in size (inside) is inserted (mouth first) into the bigger crucible and joints are sealed. This *yantra* is called *grasta yantra* and according to scholars it can be used in *pachana* (or *bandhana*) of *parada.*

Sthali Yantra

स्थाल्यां ताम्रादि निक्षिप्य मल्लेनाऽऽस्यं निरुद्ध्य च।
पच्यते स्थालिकाधस्तात् स्थालीयन्त्रमिदं स्मृतम्।। 67 ।।

The minerals like *tamra* (copper), taken along with different drugs are placed in an earthen vessel and covered with a *sharava*, sealed and heated on the stove. It is known as *sthali yantra.*

Dhupa Yantra

विधायाष्टाङ्गुलं पात्रं लौहमष्ट्यङ्गुलोच्छ्र्यम्।
कण्ठाधो द्व्यङ्गुले देशे गलाधारे हि तत्र च।। 68 ।।
तिर्यग्लोहशलाकाश्च तन्वीस्तिर्यग्विनिक्षिपेत्।
तनूनि स्वर्णपत्राणि तासामुपरि विन्यसेत्।। 69 ।।
पत्राधो निक्षिपेद्धूमं वक्ष्यमाणमिहैव हि।
तत्पात्रं न्युब्जपात्रेण छादयेदपरेण हि।। 70 ।।
मृदा विलिप्य सन्धिञ्च वह्निं प्रज्वालयेदधः।
तेन पत्राणि कृष्णानि हतान्युक्तविधानतः।। 71 ।।
रसश्चरति वेगेन द्रुतं गर्भे द्रवन्ति च।
धूपयन्त्रमिदं प्रोक्तं जारणाद्रव्यसाधने।। 72 ।।

An iron vessel measuring eight *angula* long and equally wide, is taken and a *galadhara* (pavement) is constructed around the area two *angula* below the mouth, inside the vessel. Iron rods are placed upon this pavement horizontally and on this mesh of rods, thin leaves of *svarna* are spread. The vessel should be filled before with *dhupa dravya*. (fumigatory substances like *gandhaka, haratala* etc.). The mouth of the vessel is covered with another iron vessel, kept upside down, the joining portions sealed properly with clay. This *yantra* is then placed upon the fire and heated, by which the leaves of *svarna* becomes black, which can be subjected to *marana* process, yielding the *bhasma* quickly. *Parada* can consume such leaves, readily and they disintegrate inside the *parada* very quickly. This apparatus is called *dhupa yantra* which is useful for the preparation of materials used in the process of *jarana.*

Dhupa Dravya (Fumigatory Substances)

गन्धालकशिलानां हि कज्जल्या वा मृताहिना।
धूपनं स्वर्णपत्राणां प्रथमं परिकीर्त्तितम्।। 73 ।।
तारार्थं तारपत्राणि मृतवङ्गेन धूपयेत्।
धूपयेच्च यथायोग्यैरन्यैरुपरसैरपि।। 74 ।।

The sheets of *svarna* can be fumigated using the finely ground (like *kajjali*) mixture of *gandhaka, haratala* and *manahshila* or mere *bhasma* of *naga* (lead). In *tara karma* (the process of converting the lower metals into silver), for the fumigation of the sheets of silver, *vanga bhasma* is used. In this way various useful *uparasa* (a group of minerals) are used for fumigation.

Kanduka Yantra

स्थूलस्थाल्यां जलं क्षिप्त्वा वासो बद्ध्वा मुखे दृढम्।
तत्र स्वेद्यं विनिक्षिप्य तन्मुखं प्रपिधाय च।। 75 ।।
अधस्ताज्ज्वालयेदग्निं यन्त्रं तत्कन्दुकाभिधम्।
स्वेदनीयन्त्रमित्यन्ये प्राहुश्चेदं मनीषिणः।। 76 ।।
यद्वा स्थाल्यां जलं क्षिप्त्वा तृणं क्षिप्त्वा मुखोपरि।
स्वेद्यद्रव्यं परिक्षिप्य पिधानं प्रपिधाय च।
अधस्ताज्ज्वालयेदग्निं यन्त्रं तत्कन्दुकं स्मृतम्।। 77 ।।

Half of a big *sthali* (vessel) is filled with water and its mouth is covered with a strong cloth and secured. The medicinal substances which are to undergo the process of *svedana* is spread upon this cloth and the vessel is covered with another similar shaped vessel so that the mouths of these two are joined properly. After sealing, the apparatus is placed upon fire. It is called *kanduka yantra* otherwise known as *svedani yantra*. Instead of covering the vessel with cloth, dry grass is filled in its mouth, and the medicinal substances are placed upon this grass and heated. This too can be called *kanduka yantra.*

Khalva Yantra

खल्लयोग्या शिला नीला श्यामा स्निग्धा दृढा गुरु:।
षोडशाङ्गुलकोत्सेधा नवाङ्गुलकविस्तरा।। 78 ।।
चतुर्विंशाङ्गुला दीर्घा घर्षणी द्वादशाङ्गुला।
विंशत्यङ्गुलदीर्घा वा स्यादुत्सेधे दशाङ्गुला।
खल्लप्रमाणं तज्ज्ञेयं श्रेष्ठं स्याद्रसकर्मणि।। 79 ।।

The stone which is used for making the *khalva* (mortar and pestle) should be blue or light black in colour, smooth to touch and strong, heavy in weight. A *khalva* measuring twenty *angula* long, nine *angula* wide and sixteen *angula* height, is prepared with such a stone. The *gharshani*-pestle should be twelve *angula* in length.

The similar kind of stone may be used for making a *khalva*, which is twenty *angula* in length and sixteen *angula* in width. In various processes of *parada*, both the above *khalva* are said to be the best.

Varieties of Khalva

खल्लयन्त्रं त्रिधा प्रोक्तं रसादिसुखमर्दने।। 80 ।।

In order to facilitate proper grinding of the *parada* and such other drugs, three types of *khalava* have been mentioned (i.e. *vartula*-round, *ardhachandra*-semi circular and *taptakhalva*-heated).

निरुद्गारौ सुमसृणौ कार्यौ पुत्रिकया युतौ।। 81 ।।

Khalva should be devoid of *udgara* (i.e. the inner part of the *khalva* should be devoid of any ups and downs or curves and twists so as not to spilt the contents while grinding), and should have even surface. *Mardaka* should be proper.

Semi-circular Khalva

उत्सेधे स दशाङ्गुल: खलु कलातुल्याङ्गुलायामवान्,
विस्तारेण दशाङ्गुलो मुनिमितैर्निम्नैस्तथैवाङ्गुलै:।

पाल्यां द्व्यङ्गुलविस्तरश्च मसृणोऽतीवार्द्धचन्द्रोपमो,
घर्षो द्वादशकाङ्गुलश्च तदयं खल्लो मत: सिद्धये।। 82 ।।

With an even stone-slab a semicircular *khalva* measuring sixteen *angula* in length, sixteen *angula* in width, ten *angula* in height (outer) and seven *angula* in depth (inner) is prepared. The pestle should be of twelve *anguli* in length. Such *khalva* is said to be very useful.

अस्मिन्पञ्चपल: सूतो मर्दनीयो विशुद्धये।
तत्तदौचित्ययोगेन खल्लेष्वन्येषु योजयेत्।। 83 ।।

In such a *khalva,* five *pala* (twenty *tola* or 240 gms.) of *parada* is gound, for performing a special kind of *shodhana*. For various operations and processes, according to the quantity of *parada*, *khalvas* of different size are made use of.

Circular Khalva

द्वादशाङ्गुलविस्तार: खल्लोऽतिमसृणोपल:।
चतुरङ्गुलनिम्नश्च मध्येऽतिमसृणीकृत:।। 84 ।।
मर्दकश्चिपिटोऽधस्तात् सुग्राहश्च शिखोपरि।
अयं तु वर्तुल: खल्लो मर्दनेऽतिसुखप्रद:।। 85 ।।

With a very smooth stone slab, a *khalva* is made, the bottom of which is very smooth and which is twelve *angula* wide and four *angula* deep. This *khalva* is called *vartula* (circular) *khalva*. The pestle which is used for such a *khalva* should have flat bottom and grip should be proper. Grinding can be done with much ease in such a *khalva*.

Tapta Khalva (Hot Mortar)

लौहो नवाङ्गुल: खल्लो निम्नत्वे च षडङ्गुल:।
मर्दकोऽष्टाङ्गुलश्चैव तप्तखल्लाभिधोऽप्ययम्।। 86 ।।

Tapta khalva is prepared by iron (or metal) and measures nine *angula* in width and six *angula* in depth. The pestle is eight *angula* long.

कृत्वा खल्लाकृतिं चुल्लीमङ्गारै: परिपूरिताम्।
तस्यां निवेश्य तं खल्लं पार्श्वे भस्त्रिकया धमेत्।। 87।।
तदन्तर्मर्दिता पिष्टि: क्षारैरम्लैश्च संयुता।
प्रद्रवत्यतिवेगेन स्वेदिता नात्र संशय:।। 88।।

A stove having similar size and shape of the *khalva* is prepared and filled with burning coal. A bellow is connected to it for blowing. The *khalva* which contains *parada* is taken along with *ksharas* (alkalies) and grinding is done. This would undoubtedly liquefy the *parada pisti* within no time.

कृत: कान्तायसा सोऽयं भवेत्कोटिगुणो रस:।। 89।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ
रसरत्नसमुच्चये यन्त्रनिरूपणं नाम नवमोऽध्याय:।

This type of *khalva*, if prepared by *kantaloha* (magnetic iron) instead of mere iron and *parada* is processed in it, such *parada* becomes crore time more virtuous.

This completes the ninth chapter called *Yantra Nirupana* in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

10
Musha (Crucible)

Synonyms of Musha

मूषा हि क्रौञ्चिका प्रोक्ता कुमुदी करहाटिका।
पाचनी वह्निमित्रा च रसवादिभिरीर्यते।। 1।।

Musha (crucible) has been given synonyms such as *kraunchika*, *kumudi*, *karahatika*, *pachani* and *vahnimitra* by scholars of Rasayana Shastra.

Definition of Musha

मुष्णाति दोषान्मूषेयान् सा मूषेति निगद्यते।। 2।।

Musha is called so, as it helps in eradicating the blemishes (from the mineral drugs).

Source of Musha

उपादानं भवेत्तस्या मृत्तिका लोहमेव च।। 3।।

The mud (clay) and metal (iron) are the original source materials of the *musha*.

Praise of Musha

मूषामुखविनिष्क्रान्ता वरमेकापि काकिणी।
दुर्जनप्रणिपातेन धिग्लक्षमपि मानिनाम्।। 4।।

The people who are engaged in the mercurial operations think

that a *kakini* (cowri) which has been processed in the *musha* is more valuable than one lakh rupees, earned by the wicked man.

Synonyms of Sandhilepa

मूषापिधानयोर्बन्धे बन्धनं सन्धिलेपनम्।
अन्ध्रणं रन्ध्रणं चैव संश्लिष्टं सन्धिबन्धनम्।। 5 ।।

The sealing of the joining parts of each of *musha* and the lid is also called *bandhana, sandhilepa, andhrana* and *samshlishta*.

Clay Used for Musha

मृत्तिका पाण्डुरस्थूलाऽशर्करा शोणपाण्डुरा।
चिराध्मानसहा सा हि मूषार्थमतिशस्यते।
तदभावे च वाल्मीकी कौलाली वा समीर्य्यते।। 6 ।।

For the preparation of *musha*, the mud which is taken, should be yellowish white or reddish yellow, massive, with large particles and devoid of sand. This mud should sustain very intense heat of the fire. Such a mud is suitable for the preparation of *musha*. In its absence the mud from anthill or the mud used by potter can be used.

Materials of Musha

या मृत्तिका दग्धतुषैः शणेन शिखित्रकैर्वा हयलद्दिना च।
लौहेन दण्डेन च कुट्टिता सा साधारणा स्यात् खलु मूषिकार्थे।। 7 ।।

Ash of the paddy husk, pieces of jute, powder of charcoal and horse's dung in equal quantity are mixed with abovesaid clay and the mixture is pounded well with the help of an iron crowbar to make it soft. Such mixture is useful in the preparation of common type of *musha*.

श्वेताश्मानस्तुषा दग्धाः शिखित्राः शणखर्परे।
लद्दिः किट्टं कृष्णमृत्स्ना संयोज्या मूषिकामृदि।। 8 ।।

Powders of white stone, charcoal, earthen plate and *mandura*,

ash of husk, pieces of jute, horse manure and black clay are also mixed, in the clay used for the *musha* in order to bring the strength and firmness in the *musha*.

Vajra Musha

मृदस्त्रिभागाः शणलद्दिभागौ भागश्च निर्दग्धतुषोपलादेः।
किट्टार्धभागं परिखण्ड्य वज्रमूषां विदध्यात्खलु सत्त्वपाते।। 9 ।।

Three parts of suitable clay, two parts of pieces of jute, two parts of horsedung, one part each of burnt husk, powder of stone and coal and half part of powder of *mandura* (oxide of iron) are pounded together and *vajramusha* is prepared with that paste. This *musha* is useful in *sattvapatana* process.

Yoga Musha

दग्धाङ्गारतुषोपेता मृत्स्ना वल्मीकमृत्तिका।
तत्तद्बिडसमायुक्ता तत्तद्बिडविलेपिता।। 10 ।।
तया या विहिता मूषा योगमूषेति कथ्यते।
अनया साधितः सूतो जायते गुणवत्तरः।। 11 ।।

Powder of charcoal, burnt husk, suitable clay, mud of anthill and suitable *bida*, are taken in equal quantity, powdered and *musha* is prepared. Its other and inner layers are smeared with *bida*. This *musha* is called *yoga musha* and *parada* processed in this *musha* is said to be highly potent.

Vajradravani Musha

गारभूनागधौताभ्यां शणैर्दग्धतुषैरपि।
समैः समा च मूषामृन्महिषीदुग्धमर्दिता।। 12 ।।
क्रौञ्चिका यन्त्रमात्रं हि बहुधा परिकीर्त्तिता।
तथा विरचिता मूषा वज्रद्रावणकोचिता।। 13 ।।

The clay collected from the river bed or lake bed, the mud available by washing the earthworms (or the mud in which

earthworms dwell), pieces of jute, burnt husk are taken in equal quantity and added with suitable mud. The mixture is gound in buffalo's milk and a *musha* is prepared, which is called *vajradravani musha* used for liquefying *vajra* (diamond).

Musha are prepared according to the *yantra* (instrument) used.

Gara Musha

दुग्धे षड्गुणगाराढ्या किट्टाङ्गारशणान्विता ।
कृष्णमृद्भिः कृता मूषा गारमूषेत्युदाहृता ।
यामयुग्मपरिध्मानान्नासौ द्रवति वह्निना ।। 14 ।।

Six parts of the clay from river or lake bed, one part each of powders of charcoal, *mandura* and pieces of jute and three parts of black soil are ground in milk to prepre a *musha* which is known as *gara musha*. It does not melt even after blowing in an intensive fire for six hours.

Vara Musha

वस्त्राङ्गारतुषास्तुल्यास्तच्चतुर्गुणमृत्तिका ।
गारश्च मृत्तिकातुल्यः सर्वैरेतैर्विनिर्मिता ।
वरमूषेति निर्दिष्ट्या याममग्निं सहेत सा ।। 15 ।।

One part each of rags of cloth (or jute pieces) and charcoal powder, four parts of burnt husk, six parts of suitable clay and four parts of *gara* (clay from lake bed) are ground well to prepare a *musha* named *vara musha*. It can sustain a very intensive fire, even for one *prahara* (3 hours).

Varna Musha

पाषाणरहिता रक्ता रक्तवर्गाम्बुभाविता ।
मृत्तया साधिता मूषा क्षितिखेचरलेपिता ।
वर्णमूषेति सा प्रोक्ता वर्णोत्कर्षे नियुज्यते ।। 16 ।।

The red clay devoid of stone is given the *bhavana* of the drugs

of *rakta varga* and a *musha* is prepared. Then it is smeared with the mixture of *sphatika* and *kasisa* and dried. This *varna musha* is useful in enhancing the colour of the metals etc.

Raupya Musha

एवं हि श्वेतवर्गेण रूप्यमूषा प्रकीर्तिता ।। 17 ।।

Instead of *rakta varga* drugs, the drugs of *shveta varga* are used for giving *bhavana* to white soil to prepare a *musha* and treated with *sphatika* and *kasisa*. This *raupya musha* can enhance the colours of white metals.

Bida Musha

तत्तद् बिडमृदोद्भूता तत्तद् बिडविलेपिता ।
देहलोहार्थयोगार्थं बिडमूषेत्युदाहृता ।। 18 ।।

The *musha* which is prepared by specific kinds of clays, is smeared internally and externally with special *bida*. Such a *musha* is called *bida musha*. It is used for preparing the drugs which are useful in *dehasiddhi, lohasiddhi* and in preparing *yogas*.

Vajradravana Musha

गारभूनागधौताभ्यां तुषमृष्टशणेन च ।
समैः समा च मूषामृन्महिषीदुग्धमर्दिता ।। 19 ।।
क्रौञ्चिका यन्त्रमात्रा हि बहुधा परिकीर्त्तिता ।
तया विरचिता मूषा लिप्ता मत्कुणशोणितैः ।। 20 ।।
बालाब्दध्वनिमूलैश्च वज्रद्रावणक्रौञ्चिका ।
सहतेऽग्निं चतुर्यामं द्रवेणापूरिता सती ।। 21 ।।

Clays from the lake bed as well as the mud obtained by washing earthworms (or the soil in which earthworms exist), burnt husk, jute pieces are taken in equal quantities and the suitable mud, equal to all the above materials, is mixed and ground in buffalo's milk. A *musha* is prepared according to the

instrument used, and smeared with blood of bedbug and dried. The juices or decoctions of *tagara, musta* and *dhvanimula* (*akashabela*) are smeared and dried. Such a *musha* which is called *vajradravana musha* filled with liquid if heated even for four *praharas* (12 hours), can sustain the heat.

Vrintaka Musha

वृन्ताकाकारमूषायां नालं द्वादशकाङ्गुलम्।
धत्तूरपुष्पवच्चोर्ध्वं सुदृढं श्लिष्टपुष्पवत्।। 22।।
अष्टाङ्गुलश्च सच्छिद्रं सा स्याद्वृन्ताकमूषिका।
अनया खर्परादीनां मृदूनां सत्त्वमाहरेत्।। 23।।

A brinjal shaped *musha* is made and a twelve *angula* long tube is connected to the orifice of the *musha*. The opening of the tube should resemble the flowers of *dhatura* and should be eight *angula* in circumference at the opening. This tube should have holes in it. (minerals can be put into *musha* through this tube). This *vrintaka musha* can be used for the *sattvapatana* of soft minerals like *kharpara* etc.

Gostani Musha

मूषा या गोस्तनाकारा शिखायुक्तपिधानका।
सत्त्वानां द्रावणे शुद्धौ मूषा सा गोस्तनी भवेत्।। 24।।

An elongated *musha* in the shape of cow's *uddara* is prepared. The *pidhana* (*lid*) should have an elevation to hold it properly. This *gostani musha* is useful in *sattvadravana* and *sattvashodhana*.

Malla Musha

निर्दिष्टा मल्लमूषा या मल्लद्वितयसम्पुटात्।
पर्पट्यादिरसादिनां स्वेदनाय प्रकीर्तिता।। 25।।

A *musha* which is prepared by placing one *sharava* upon another in the form of *samputa* is called *malla musha*. It is used in the *svedana* etc. of *parpati* and others.

Pakva Musha

कुलालभाण्डरूपा या दृढा च परिपाचिता।
पक्वमूषेति सा प्रोक्ता पोटल्यादिविपाचने।। 26।।

A strong *musha* which is like a potter's vessel and which is baked well in the intensive heat, is known as *pakva musha*. It is useful for boiling *potali* etc.

Gola Musha

निर्वक्त्रगोलकाकारा पुटनद्रव्यगर्भिणी।
गोलमूषेति सा प्रोक्ता सत्वरं द्रवरोधिनी।। 27।।

A round *musha* in which suitable mineral substances are kept inside and which has no orifice (sealed completely) is called *gola musha*. It prevents the liquids to come out.

Maha Musha

तले या कूर्पराकारा क्रमादुपरि विस्तृता।
स्थूलवृन्ताकवत्स्थूला महामूषेत्यसौ स्मृता।
सा चायोऽभ्रकसत्त्वादेः पुटाय द्रावणाय च।। 28।।

It is a *musha* which is small like *kurpara* joint (elbo joint) and gradually bigger upwards, stout in the middle like large brinjal. Such a *musha* is used for extracting *sattva* from ores like *abhraka* etc. and also for liquefying processes.

Manduka Musha

मण्डूकाकारमूषा या निम्नताऽऽयामविस्तरा।
षडङ्गुलप्रमाणेन मूषा मण्डूकसंज्ञिका।
भूमौ निखन्य तां मूषां दद्यात्पुटमथोपरि।। 29।।

A *musha* resembling the shape of frog and measuring six *angula* long, wide and deep, is known as *manduka musha*, which is kept inside the earth, heated, arranging the fire upon it.

Musala Musha

मूषा या चिपिटा मूले वर्तुलाऽष्टाङ्गुलोच्छ्रया।
मूषा सा मूसलाख्या स्याच्चक्रबद्धरसे हिता।।30।।

A round five *angula* long *musha* with flattened bottom is called *musala musha* which is used in the preparation of *chakrabaddha parada*.

Mushapyayana

द्रव्ये द्रवीभावमुखे मूषाया ध्मानयोगतः।
क्षणमुद्धरणं यत्तन्मूषाऽऽप्यायनमुच्यते।।31।।

During the process of blowing the *musha* in the fire, when the material present in the *musha* is liquefied, the *musha* is retrieved from the fire for a while. This act is known as *mushapyayana*.

KOSHTI YANTRA

सत्त्वानां पातनार्थाय पातितानां विशुद्धये।
कोष्ठिका विविधाकारास्तासां लक्षणमुच्यते।।32।।

In order to extract the *sattva* (metallic part) from the ores as well as to purify it, *koshtis* (furnaces) of different sizes and shapes are necessary. Such *koshtis* are described, here after.

Angara Koshti

राजहस्तसमुत्सेधा तदर्धायामविस्तरा।
चतुरस्रा च कुड्येन वेष्टिता मृण्मयेन च।।33।।
एकभित्तौ चरेद्द्वारं वितस्त्याभोगसंयुतम्।
द्वारं सार्धवितस्त्या च सम्मितं सुदृढं शुभम्।।34।।
देहल्यधो विधातव्यं धमनाय यथोचितम्।
प्रादेशप्रमिता भित्तिरुत्तरङ्गस्य चोर्ध्वतः।।35।।
द्वारं चोपरि कर्त्तव्यं प्रादेशप्रमितं खलु।
ततश्चेष्टिकया रुद्ध्वा द्वारसन्धिं विलिप्य च।।36।।

शिखित्रैस्तां समापूर्य धमेद्भस्त्राद्वयेन च।
शिखित्रान् धमनद्रव्यमूर्ध्वद्वारेण निक्षिपेत्।।37।।
सत्त्वपातनगोलांश्च पञ्च पञ्च पुनः पुनः।
भवेदङ्गारकोष्ठीयं खराणां सत्त्वपातिनी।।38।।

On the surface of the earth, an earthen cabin is built, which measures one *rajahasta* (one and half arm length, approx. thirty *angula*) in length, half *rajahasta* (fifteen *angula*) in width and half *rajahasta* (fifteen *angula*) in depth. An opening is left at one wall of this cabin which would be one *vitasta* (twelve *angula*) long, twelve *angula* wide. Below this opening, below the wall, at the distance of one *pradesha* (the distance between the tips of the little finger and thumb when the palm is expanded or a span of about 9") inside the earth, another strong and good looking opening is made which is one and half *vitasta* (eighteen *angula*) in length, width and depth. This is done, so that two pipes of bellows can be joined through.

Another door is provided on top of the cabin which measures one *pradesha* (twelve *angula*) in length and width. The remaining space, the opening on one of the wall, and opening below the wall (except the space provided for pipes) are closed by bricks and sealed properly by mud plaster.

The burning charcoal is put into the *koshti* from the top opening and blowed the air with the help of bellows. Then the mineral drugs which are made into the spherical balls (for *sattvapatana*), are also put inside this *koshti* and blowed intensively. Generally, such five balls are placed at a time. This *koshti* is called *angara koshti* which is useful in the *sattvapatana* of harder minerals.

Patala Koshti

दृढभूमौ चरेद् गर्तं वितस्त्या सम्मितं शुभम्।
वर्तुलं चाथ तन्मध्ये गर्तमन्यं प्रकल्पयेत्।।39।।
चतुरङ्गुलविस्तारनिम्नत्वेन समन्वितम्।
गर्ताद्धरणिपर्यन्तं तिर्यङ्नालसमन्वितम्।।40।।

किञ्चित्समुन्नतं बाह्यं गर्ताभिमुखनिम्नगम्।
मृच्चक्रीं पञ्चरन्ध्राढ्यां गर्भगर्तोदरे क्षिपेत्।। 41।।
आपूर्य कोकिलैः कोष्ठीं प्रधमेदेकभस्त्रया।
पातालकोष्ठिका ह्येषा मृदूनां सत्त्वपातिनी।
ध्मानसाध्यपदार्थानां नन्दिना परिकीर्त्तिता।। 42।।

A round pit measuring one *vitasta* (12") deep and equally wide, is made inside the earth. Another small pit 4" in length and 4" in width is dug inside the bigger pit in the centre.

A twisted pipe is set so that one end goes inside the smaller central pit and other outside the bigger pit. This end opens at the surface of the earth and can be connected to bellows.

Then, a round earthen *chakra*-disc (wheel) with five holes, is placed upon the central pit and the outer pit is filled with coal. (After placing the *sattvapatana* material) the coal is ignited and air is pumped with the help of bellows. It is called *patala koshti* and used for the *sattvapatana* of softer minerals. It is described by the scholar Nandi and is convenient for extracting the *sattva* from softer minerals.

Gara Koshti

द्वादशाङ्गुलनिम्ना या प्रादेशप्रमिता तथा।
चतुरङ्गुलतश्चोर्ध्वं वलयेन समन्विता।। 43।।
भूरिच्छिद्रवतीं चक्रीं वलयोपरि निक्षिपेत्।
शिखित्रांस्तत्र निक्षिप्य प्रधमेद्वङ्कनालतः।
गारकोष्ठीयमाख्याता सृष्टलोहविनाशिनी।। 44।।

A round pit measuring one *vitasta* (12") deep and wide is constructed. Then at the inner wall, at the height of 4" from the bottom, a circular construction is made attached to the wall. On this platform or embarkment, a *chakra* (wheel) made of metal or mud is placed, which has many holes in it. Charcoal is filled in the pit upon this wheel and (after placing the *musha*) fire is ignited and blowed with the help of *vankanala*. This *gara koshti* is used for separating the metallic portions from their ores (or to eradicate the blemishes from the metals).

Vankanala

मूषा मृद्भिर्विधातव्यमरत्निप्रमितं दृढम्।
अधोमुखञ्च तद्वक्त्रे नालं पञ्चाङ्गुलं खलु।
वङ्कनालमिदं प्रोक्तं दृढध्मानाय कीर्त्तितम्।। 45।।

A strong pipe is prepared out of mud used for *musha*. This would be one *aratni* (10") in length. At one end of this pipe another bent pipe is connected which is 5" in length. This instrument is called *vankanala*, used for blowing (by mouth).

Tiryak Pradhamana Koshti

कोष्ठी सिद्धरसादीनां विधानाय विधीयते।
द्वादशाङ्गुलकोत्सेधा सा बुध्ने चतुरङ्गुला।
तिर्यक्प्रधमनाऽऽस्या या मृदुद्रव्यविशोधनी।। 46।।

For digesting and preparing processed mercurial preparations, a *koshthi* measuring 12" high with 4" wide at the lower end is prepared. The bent pipes are connected to it and used for the purification of materials. This *koshti* is called *tiryak pradhamana koshthi* which is used for the *shodhana* of soft materials.

PUTA

Characteristics of Puta

रसादिद्रव्यपाकानां प्रमाणज्ञापनं पुटम्।
नेष्टो न्यूनाधिकः पाकः सुपाकं हितमौषधम्।। 47।।

Puta is the process in which the degree of the heat, which is necessary for the incineration of *rasa, maharasa, uparasa* or metals, is understood. It is seen that the degree of heat is neither less nor more than necessary in this process.

Advantages of Puta

लोहादेरपुनर्भावो गुणाधिक्यं ततोऽग्रता।
अनप्सु मज्जनं रेखापूर्णता पुटतो भवेत्।। 48।।
पुटाद्ग्राव्णो लघुत्वञ्च शीघ्रव्याप्तिश्च दीपनम्।
जारितादपि सूतेन्द्राल्लोहानामधिको गुणः।। 49।।
यथाश्मनि विशेद्वह्निर्बहिस्थपुटयोगतः।
चूर्णत्वाद्धि गुणावाप्तिस्तथा लोहेषु निश्चितम्।। 50।।

Puta helps in converting the minerals into *bhasma* and such *bhasmas* become *apunarbhava* (means *bhasmas* cannot be reconverted into minerals). In the state of *bhasma*, minerals gain more beneficial qualities and become excellent. These *bhasmas* become *varitara* (very light so that they can float on surface of the water) and *rekhapurna* (very minute so that they can enter into the grooves of fingers). Due to such a process of *puta*, minerals become very light (for digestion too) and can readily assimilate. The digestive power is enhanced by intake of the *bhasmas*, which is due to the process of *puta*. The *bhasmas* of the metals like iron etc. attain more superior qualities than the *parada*, which has undergone the process of *jarana*. These minerals, by the impact of the process of *puta*, turn into *bhasma* and obtain excellent qualities when confined in to *sumputa* and become *rekhapurna* powder (*bhasma*), by the heat of the external fire and attain beneficial qualities.

Maha Puta

निम्ने विस्तरतः कुण्डे द्विहस्ते चतुरस्रके।
वनोत्पलसहस्रेण पूरिते पुटनौषधम्।। 51।।
क्रौञ्च्यां रुद्धं प्रयत्नेन पिष्टिकोपरि निक्षिपेत्।
वनोत्पलसहस्रार्धं क्रौञ्चिकोपरि विन्यसेत्।
वह्निं प्रज्वालयेत्तत्र महापुटमिदं स्मृतम्।। 52।।

A rectangular pit measuring two *hasta* (about 48") long, equally wide and high, is made and filled with one thousand

cowdung cakes. The mineral drugs are taken in a *musha*, sealed properly and this *musha* is placed upon the heap of the cowdung cakes. Again five hundred cowdung cakes are heaped over and around this *musha* and burning coal are placed. This is called *maha puta*.

Gaja Puta

राजहस्तप्रमाणेन चतुरस्रञ्च निम्नकम्।
पूर्णञ्चोपलसाठीभिः कण्ठावध्यथ विन्यसेत्।। 53।।
विन्यसेत् कुमुदीं तत्र पुटनद्रव्यपूरिताम्।
पूर्वाच्छगणतोऽर्धानि गिरिण्डानि विनिक्षिपेत्।
एतद् गजपुटं प्रोक्तं महागुणविधायकम्।। 54।।

A pit which measures one *rajahasta* (about 30") in length, width and depth is made and cowdung cakes are filled upto brim of this pit. Then the properly sealed *musha* containing mineral drugs is placed upon the heap of cowdung cakes and the half number of the cowdung cakes are spread upon the *musha* and fire is lit. This *puta* which is called *gaja puta* is said to be very beneficial.

Varaha Puta

इत्थं चारत्निके कुण्डे पुटं वाराहमुच्यते।। 55।।

A pit measuring one *aratni* (a length from the tip of the elbow joint to the spread tip of the little finger, about 10") in length, breadth and depth, is prepared and *puta* is given. This *puta* is called *varaha puta*.

Kukkuta Puta

पुटं भूमितले यत्तद्वितस्तिद्वितयोच्छ्रयम्।
तावच्च तलविस्तीर्णं तत्स्यात्कुक्कुटकं पुटम्।। 56।।

In the earth, a pit measuring two *vitasta* (24") in rectangular

shape is made, filled with cowdung cakes, *samputa* is kept and *puta* is given. This *puta* is called *kukkuta puta* (*bhumitale* is also interpreted as giving *puta*, spreading cowdung cakes on the surface of the earth).

Kapota Puta

यत्पुटं दीयते भूमावष्टसङ्ख्यैर्वनोत्पलैः।
बद्ध्वा सूतकभस्मार्थं कपोतपुटमुच्यते।। 57 ।।

Kapota puta is that *puta* which is given by keeping *samputa*, containing *parada* in the midst of eight cowdung cakes, on the surface of the earth.

Gobara Puta

गोष्ठान्तर्गोक्षुरक्षुण्णं शुष्कं चूर्णितगोमयम्।
गोबरं तत्समादिष्टं वरिष्टं रससाधने।। 58 ।।
गोबरैर्वा तुषैर्वापि पुटं यत्र प्रदीयते।
तद् गोबरपुटं प्रोक्तं सिद्धये रसभस्मनः।। 59 ।।

In the cowsheds, due to the stampede by the cows by means of hooves, the dried cowdung becomes powder, which is known as *gobara*. It is useful in the mercurial processes. Giving the *puta*, keeping the *samputa* confined inside this *gobara* or mere *tusha* (paddy husk) is called *gobara puta*. This kind of *puta* is used in the *marana* of *parada*.

Bhanda Puta

स्थूलभाण्डे तुषापूर्णे मध्ये मूषासमन्विते।
वह्निना विहिते पाके तद्भाण्डपुटमुच्यते।। 60 ।।

A vessel is half filled with husk and *musha* containing drugs, is kept over it. Again husk is filled over that *musha* and *agni* is given. It is called *bhanda puta*.

Valuka Puta

अधस्तादुपरिष्टाच्च क्रौञ्चिकाऽऽच्छाद्यते खलु।
बालुकाभिः प्रतप्ताभिर्यत्र तद् बालुकापुटम्।। 61 ।।

In *Valuka puta*, *puta* is given by spreading hot sand, above and below the *musha* (or the *musha* is kept in the midst of sand taken in a vessel, which is heated over the stove).

Bhudhara Puta

वह्निमित्रां क्षितौ सम्यङ् निखन्याद् द्व्यङ्गुलादधः।
उपरिष्टात्पुटं यत्र पुटं तद्भूधराह्वयम्।। 62 ।।

A small pit is dug inside the earth and the *musha* containing drugs are burried in this pit so that two *angula* mud is covered upon it. Then cowdung cakes are spread on the surface and heated. It is called *bhudhara puta*.

Lavaka Puta

ऊर्ध्वं षोडशिकामात्रैस्तुषैर्वा गोबरैः पुटम्।
यत्र तल्लावकाख्यं स्यात्सुमृदुद्रव्यसाधने।। 63 ।।

Lavaka puta is that, in which *puta* is given by placing the *musha* inside one *shodashika* the surface of the earth. This *puta* is useful in the *marana* of very soft minerals.

Anukta Puta (Untold Puta)

अनुक्तपुटमाने तु साध्यद्रव्यबलाबलात्।
पुटं विज्ञाय दातव्यमूहापोहविचक्षणैः।। 64 ।।

If there is no indication in the text, of a specific *puta*, the scholars should assess, on the basis of the hardness or softness of the mineral in question and decide accordingly, (one *pala* or sixteen *tola*) of *tusha* or *gobara* on the type of *puta* to be used.

Synonyms of Vanopala

पिष्टकं छगणं छाणमुपलं चोपलं तथा।
गिरिण्डोपलसाठी च वराटी छगणाभिधा: ।। 65 ।।

Vanopala (cowdung cakes) are also called *pishtaka, chagana, chana, utpala, girinda, upalasathi* and *varati.*

VARGA
(Groups)

Lohas or Dhatus (Metals)

सुवर्णं रजतं ताम्रं त्रपु सीसकमायसम्।
षडेतानि च लोहानि कृत्रिमौ कांस्यपित्तलौ ।। 66 ।।

Suvarna (gold), *rajata* (silver), *tamra* (copper), *sisa* (*naga*-lead), *loha* (*ayas*-iron) are called *lohas* (metals). *Kamsya* (bronze) and *pittala* (brass) are known as *kritrima* (*mishra*-alloys) *lohas.*

Lavanas (Salts)

लवणानि षडुच्यन्ते सामुद्रं सैन्धवं बिडम्।
सौवर्चलं रोमकञ्च चूलिकालवणं तथा ।। 67 ।।

There are six types of salts, viz. *samudra lavana* (salt from sea water), *saindhava lavana* (rock salt), *bida lavana* (ammonium chloride), *souvarchala lavana* (compound of Nacl with Kcl, Na_2SO_4 and corbonate), *chullika lavana* (amnonium chloride).

Kshara-traya (Three Alkalies)

क्षारत्रयं समाख्यातं यवसर्जिकटङ्कणम् ।। 68 ।।

The group of three *ksharas* viz. *yavakshara* (alkali derived from *yava*-maize), *svarjika kshara* (sodium carbonate $Na_2 Co_3$ mineral alkali) and *tankana kshara* (borax $Na_2B_4O_7$ $10H_2O$) is called *ksharatraya.*

Kshara-panchaka (Five Alkalies)

पलाशमुष्क कक्षारौ यवक्षार: सुवर्चिका।
तिलनालोद्भव: क्षार: संयुक्तं क्षारपञ्चकम् ।। 69 ।।

Palasha kshara (alkali derived from *palasha*), *mushkaka kshara* (derived from *mushkaka*), *yavakshara* (derived from *yava*-maize) and *tilakshara* (derived from *tila*-gingelly) are together called *kshara-panchaka.*

Madhura-traya

घृतं गुडो माक्षिकञ्च विज्ञेयं मधुरत्रयम् ।। 70 ।।

Ghrita (ghee), *guda* (jaggery) and *madhu* (honey) are together known as *madhuratraya.*

Taila Varga (Group of Oils)

कङ्गुणी तुम्बिनी घोषा करीरश्रीफलोद्भवम्।
कटुवार्त्ताकसिद्धार्थसोमराजीबिभीतजम् ।। 71 ।।
अतसीजं महाकाली निम्बजं तिलजं तथा।
अपामार्गाद्देवदाली दन्ती तुम्बुरुविग्रहात् ।। 72 ।।
अङ्कोलोन्मत्तभल्लातपलाशेभ्यस्तथैव च।
एतेभ्यस्तैलमादाय रसकर्मणि योजयेत् ।। 73 ।।

Kanguni, katutumbi, ghosha, karira, bilvaphala, narikela, kutuvartaka, siddhartha, somaraji (*bakuchi*), *bhibhitaka, atasi, mahakali, nimba bija, tila, apamarga, devadali, danti, tumburu, ankola, dhattura, bhallataka, palasha* are the plants which contain oil and can yield the oil which is extracted from them and used in mercurial operations.

Vasa Varga

जम्बूकमण्डूकवसा वसा कच्छपसम्भवा।
कर्कोटी शिंशुमारी च गोशूकरनरोद्भवा।
अजोष्ट्रखरमेषाणां महिषस्य वसा तथा ।। 74 ।।

Jambuka (fox), *manduka* (frog), *kacchapa* (tortoise), *karkoti* (crab), *shinshumari* (jackal), *go* (cow), *shukara* (pig), *manushya* (human being), *aja* (sheep), *ushtra* (camel), *khara* (donkey), *mesha* (ram) and *mahisha* (buffalo); the *vasa* of these animals are grouped as *vasa varga* (group of fats).

Mutra Varga

मूत्राणि हस्तिकरभमहिषीखरवाजिनाम्।
गोऽजावीनां स्त्रियः पुंसां पुष्पं बीजं तु योजयेत्।। 75।।

The urines of elephant, camel, buffalo, donkey, horse, cow, goat and sheep are used in Rasashastra. If at all, the *raja* (menstrual fluid) is to be used, it is taken from female animals and *shukra* (semen) from males.

Mahisha-panchaka

महिषाम्बु दधि क्षीरं साभिघारं शकृद्रसः।
तत्पञ्चमाहिषं ज्ञेयं तद्वच्छागलपञ्चकम्।। 76।।

The urine, milk, curd, ghee and juice of dung (manure) which are obtained from the buffalo, together called *mahisha-panchaka*. The same products which are obtained from the *chaga* (goat) are called *chaga panchaka*.

Amla Varga

अम्लवेतसजम्बीरनिम्बुकं बीजपूरकम्।
चाङ्गेरी चणकाम्लश्च अम्लीकं कोलदाडिमम्।। 77।।
अम्बष्ठा तिन्तिडीकश्च नारङ्गं रसपत्रिका।
करवन्दं तथा चान्यदम्लवर्गः प्रकीर्त्तितः।। 78।।
चणकाम्लश्च सर्वेषामेक एव प्रशस्यते।
अम्लवेतसमेकं वा सर्वेषामुत्तमोत्तमम्।
रसादीनां विशुद्ध्यर्थं द्रावणे जारणे हितम्।। 79।।

Amlavetasa, jambira, nimbuka, bijapura, matulunga, changeri,

chanakamla, amlika, kola, dadima, ambashta (patha), tintidika, naranga, rasapatrika (chukrika), karavanda etc. are other sour substances which are included in the group called *amla varga*. In this group *chanakam* is said to be the best. However, some opine that *amlavetasa* is considered as the best. This group is useful in the *shodhana, dravana* and *jarana* processes of the subtances like *parada* etc.

Amla Panchaka

कोलदाडिमवृक्षाम्लचुल्लिकाचुक्रिकारसम्।
पञ्चाम्लकं समुद्दिष्टं तच्चोक्तं चाम्लपञ्चकम्।। 80।।

The *amla panchaka* is the group of five sour drugs such as *kola, dadima, vrakshamla, chukrika* and *chullika.*

Pancha Mrittika

इष्टिका गैरिका लोणं भस्म वल्मीकमृत्तिका।
रसप्रयोगकुशलैः कीर्त्तिताः पञ्चमृत्तिकाः।। 81।।

The scholars of Rasashastra consider the brick powder, the *gairika* (red ochre), the salt, the ash and mud of anthill together as *pancha mrittika.*

Visha Varga

शृङ्गीकं कालकूटश्च वत्सनाभश्च सक्तुकम्।
पित्तश्च विषवर्गोऽयं स वरः परिकीर्त्तितः।। 82।।

Shringika (a species of *vatsanabhi*), *kalakuta visha, saktuka visha, pita visha* and *vatsanabhi visha* are together called *visha varga.*

रसकर्मणि शस्तोऽयं तद्बन्धनविधावपि।
अयुक्त्या सेवितश्चायं मारयत्येव निश्चितम्।। 83।।

This *visha varga* is extremely useful in various mercurial processes, and *parada bandhana*. The poisons of this group, if consumed without proper understanding, definitely become fatal.

Upavisha Varga

लाङ्गली विषमुष्टिश्च करवीरो जया तथा।
नीलकः कनकोऽर्कश्च वर्गो ह्युपविषात्मकः।। 84।।

Langali, vishamushti, karavira, jaya, nilaka, dhattura and *arka* are counted in the group called *upavisha varga.*

Dugdha Varga

हस्त्यश्वी वनिता धेनुर्गर्दभी छागिकाऽविका।
उष्ट्रिकोदुम्बराश्वत्थभानुन्यग्रोधतिल्वकम्।। 85।।
दुग्धिका स्नुग्गणश्चैव तथैवोत्तमकन्यका।
एषां दुग्धैर्विनिर्दिष्टो दुग्धवर्गो रसादिषु।। 86।।

The milk obtained from elephant, horse, woman, cow, donkey, goat, sheep, camel and the latex collected from the plants viz., *udumbara, ashvatha, vata, arka, tilvaka, dugdhika, snuhi* and *uttama kanyaka* etc. are included in the *dughda varga.* All these are useful in mercurial processes.

Vid Varga

पारावतस्य चाषस्य कपोतस्य कलापिनः।
गृध्रस्य कुक्कुटस्यापि विनिर्दिष्टो हि बिड्गणः।
शोधनं सर्वलोहानां पुटनाल्लेपनात्खलु।। 87।।

The collection of feacal matter from *paravata* (pigeon) *chataka* (*nilakantha*), *kapota* (pheasant), *mayura* (peacock), *gridhra* (vulture) and *kukkuta* (hen) is called *vid varga.* These substance, if pasted over the thin leaves of metals, they (metals) become *shuddha.*

Rakta Varga

कुसुम्भं खदिरो लाक्षा मञ्जिष्ठा रक्तचन्दनम्।
अक्षीवं बन्धुजीवश्च तथा कर्पूरगन्धिनी।
माक्षिकञ्चेति विज्ञेयो रक्तवर्गोऽतिरञ्जनः।। 88।।

Kusumbha, khadir, laksha, manjishtha, rakta chandana, akshiva, bandhujiva, karpuragandhini, and *svarna makshika* (chalcopyrites or honey) come under *rakta varga.* These are useful in *ranjana* process.

Pita Varga

किंशुकः कर्णिकारश्च हरिद्राद्वितयं तथा।
पीतवर्गोऽयमादिष्टो रसराजस्य कर्मणि।। 89।।

Kimshuka, kanikara, haridra, daruharidra are the drugs which are together called *pita varga.*

Shveta Varga

तगरः कुटजः कुन्दो गुञ्जा जीवन्तिका तथा।
सिताम्भोरुहकन्दश्च श्वेतवर्ग उदाहृतः।। 90।।

The group of drugs viz., *tagara, kutaja, kunda, shvetagunja, jivantika,* and *shvetakamala* is called *shveta varga.*

Krishna Varga

कदली कारवेल्ली च त्रिफला नीलिका नलः।
पङ्कः कासीसबालाम्रं कृष्णवर्ग उदाहृतः।। 91।।

Kadali, karavellaka, triphala, bibhitaki, amalaki, nili, nala, panka (slush), *kasisa* (ferrous sulphate) and *balamra* are the drugs considered in *krishna varga.*

रक्तवर्गादिवर्गैश्च द्रव्यं यज्जारणात्मकम्।
भावनीयं प्रयत्नेन तादृग्रागाप्तये खलु।। 92।।

If the *bhavana* (grinding with) of the juice or decoction of the abovesaid drugs (from *rakta varga* etc.) is given and *jarana* process is performed, such substances which have undergone the *jarana* process will attain the colours of the respective groups.

Shodhaniya Gana

काचटङ्कणशिप्राभिः शोधनीयो गणो मतः।
सत्त्वानां बद्धसूतस्य लोहानां मलनाशनः।
कापालिकगणध्वंसी रसवादिभिरुच्यते।। 93।।

Kancha (glass), *tankana* (borax), *shipra* (pearl shell) are together known as *shodhaniya gana.* This group is useful in eradicating the blemishes from *sattva*, from *parada* which is bound and from metals. It is also said that this removes the *kapalika dosha* (generating *kushta*) from the mineral drugs, according to scholars of Rasashastra.

Mridukaraka Varga

महिषी मेढ्राण्डगर्भः कालिङ्गो धवबीजयुक्।
शशास्थीनि च वर्गोऽयं लोहकाठिन्यनाशनः।। 94।।

The *mridukaraka varga* (the group which helps in softening) consists of testis and uterus of buffalo and ram (some opine, these are *mahishikanda* and *meshashringi* which are herbs), *kalinga* (*indrayava*), *dhavabija* and bones of rabbit. This group helps in softening the metals by removing the hardness.

Dravana Varga

गुडगुग्गुलुगुञ्जाऽऽज्यसारघैष्टङ्कणान्वितैः।
दुर्द्रावाखिललोहादेर्द्रावणाय गणो मतः।। 95।।

Guda (jaggery), *guggulu, gunja, ghrita* (ghee), *madhu* (honey) and *tankana* (borax) are together called *dravana varga.* The drugs of this group are used for quick melting of the metals which do not melt easily.

Functions of Kshara, Amla, Visha and Sneha

क्षाराः सर्वे मलं हन्युरम्लं शोधनजारणम्।
मान्द्यं विषाणि निघ्नन्ति स्नैग्ध्यं स्नेहाः प्रकुर्वते।। 96।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ
रसरत्नसमुच्चये मूषाकोष्ठिकापुटादिकथनं नाम दशमोऽध्यायः।

All kinds of *ksharas* (alkalies) help in eradicating the blemishes of other substances. The *amlas* (acidic drugs) perform *shodhana* and *jarana* and *vishas* (poisons) can remove the *mandya* (sluggishness) from other substance. *Sneha* (oily drugs) help in imporving the slimminess.

This completes the tenth chapter called *Musha Koshthikadi Kathanani* in Rasaratna Samuchchaya written by Vagbhatacharya the son of Shri Vaidyapati Simhagupta.

11
Manaparibhasha (Measurements)

First Type of Measurements

षट्त्रुट्यश्चैकलिक्षा स्यात् षड्लिक्षा यूकमुच्यते।
षड्यूकास्तु रज:संज्ञं निबोध: त्वञ्च सुव्रते।। 1।।
षड्रज: सर्षप: स स्यात्सिद्धार्थ: स च कीर्तित:।
षट्सिद्धार्थेन देवेशि यवस्त्वेक: प्रकीर्तित:।। 2।।
षड्यवैरेकागुञ्जा स्यात् त्रिगुञ्जो वल्ल उच्यते।
षड्भिरेव तु गुञ्जाभिर्माष एक: प्रकीर्तित:।
माषा द्वादश तोल: स्याच्चतुस्तोलै: पलं भवेत्।। 3।।

Six *trutis* make one *liksha*, six *likshas* make one *yuka* and six *yukas* make one *raja*, Oh! *Suvrate* (Parvati) understand this. Six *raja* equals to one *sarshapa*, which is also called *siddhartha*. Hey Goddess! such six *siddharthas* make one *yava*, six *yavas* are one *gunja*, three *gunjas* are one *valla*, and six *gunjas* are equal to one *masha*. Sixteen such *masha* make one *tola* and four *tolas* are equal to one *pala*.

(Though the above *shlokas* are at the end of chapter 10 in the original text, for convenience it is inserted in the beginning of this chapter).

Second Type of Measurements

त्रुटि: स्यादणुभि: षड्भिस्तैर्लिक्षा षड्भिरीरिता।
ताभि: षड्भिर्भवेद्यूक: षड्यूकास्तद्रज: स्मृतम्।। 4।।
षड्रज: सर्षप: प्रोक्तस्तै: षड्भिर्यव ईरित:।
एका गुञ्जा यवै: षड्भिर्निष्पावस्तु द्विगुञ्जक:।। 5।।

स्याद् गुञ्जात्रितयं वल्लो द्वौ वल्लौ माष उच्यते।
द्वौ माषौ धरणं ते द्वे शाणनिष्ककला: स्मृता:।। 6।।
निष्कद्वयन्तु वटक: स च कोल इतीरित:।
स्यात्कोलद्वितयं तोल: कर्षो निष्कचतुष्टयम्।। 7।।
उदुम्बरं पाणितलं सुवर्णं कवलग्रह:।
अक्षं विडालपदकं शुक्ति: पाणितलद्वयम्।। 8।।
शुक्तिद्वयं पलं केचिदन्ये शुक्तित्रयं विदु:।
तदेव कथितं मुष्टि: प्रकुञ्चो बिल्वमित्यपि।। 9।।
पलद्वयं तु प्रसृतं तद्द्वयं कुडवोऽञ्जलि:।
कुडवौ मानिका तौ स्यात्प्रस्थो द्वे मानिके स्मृत:।। 10।।
प्रस्थद्वयं शुभं तौ द्वौ पात्रकाह्वयमाढकम्।
तैश्चतुर्भिर्घटोन्माननल्वणार्मणकुम्भका:।। 11।।
द्रोणस्य शब्दा: पर्याया: पलानां शतकं तुला।
चत्वारिंशत्पलशततुला भार: प्रकीर्तित:।! 12।।

Six *anus* make one *truti*, six *trutis* make one *liksha*, six *likshas* make one *yuka*, such six *yukas* make one *raja* and six *rajas* is equal to one *sarshapa*. Six *sarshapas* make one *yava*, six *yava* make one *gujna* and two *gunjas* is one *nishpava*. Three *gunjas* are equal to one *valla* and two *vallas* makes one *masha*. Two *mashas* equal one *dharana*, two *dharanas* are one *shana*, which is also known as *nishka*, *kala* etc. two such *nishka* make one *vataka*, also called *kola*, such two *kolas* are equal to one *tola*. *Tola* is known as *karsha*, *nishkachatustaya*, *udumbara*, *panitala*, *suvarna*, *kavalagraha*, *aksha* and *bidalapadakam*.

Two *tolas* make one *shukti* and two *shaktis* equal one *pala*. *Pala* is known as *mushti*, *prakuncha* and *bilva*. Two *palas* equal one *prasruta*, two *prasrutas* make one *kudava* or *anjali*. Two such *kudavas* are equal to one *manika* and two *manikas* make one *prastha*, two *prasthas* make one *shubha*, and two *shubhas* one *patraka* or *adhaka* (*bhajana* and *patras* are other names), four *adhakas* equal one *drona* which has synonyms like *ghata*, *unmana*, *nalvana*, *armana*, *kumbhaka* etc. One hundred *palas* make one *tula* and such four thousand *palas* or forty *tolas* are equal to one *bhara*.

रसार्णवादिशास्त्राणि निरीक्ष्य कथितं मया।
रसोपयोगि यत्किञ्चिद् दिङ्मात्रं तत्प्रदर्शितम्।। 13।।

The measurements here are briefly explanined, (which are useful in the mercurial process), only after referring the recognised texts such as Rasarnava and like.

SAMSKARAS OF PARADA

अधुना रसराजस्य संस्कारान् सम्प्रचक्ष्महे।। 14।।

Here onwards the *samskaras* (special processes) of *parada*, which is the king of minerals, will be explained.

Ashtadasha Samskaras (18 Special Processes)

स्यात्स्वेदनं तदनु मर्दनमूर्च्छनञ्च उत्थापनं पतनरोधननियामनानि।
सन्दीपनं गगनभक्षणमानमत्र सञ्चारणा तदनु गर्भगताद्रुतिश्च।। 15।।
बाह्यद्रुतिः सूतकजारणा स्याद् रागस्तथा सारणकर्म पश्चात्।
सङ्क्रामणं वेधविधिः शरीरे योगस्तथाष्टदशधाऽत्र कर्म।। 16।।

Svedana, mardana, murcchana, utthapana, patana, rodhana, niyamana, sandipana, abhraka bhakshana, sancharana, garbhadruti, bahyadruti, jarana, parada ranjana, sarana, sankramana, vedhakarma and *sharirayoga* are the eighteen *samskaras* of *parada*.

Contra-indications of Mercurial Medicine

न योज्यो मर्मणि च्छिन्ने न च क्षाराग्निदग्धयोः।। 17।।

In such conditions, where the *marmas* (vital points in the body) are damaged by cutting or burnt by *ksharas* (alkalies) and fire, the mercurial medicines should not be administred.

Shuddha and Murchhita Parada

शुद्धः स मृद्वग्निसहो मूर्च्छितो व्याधिनाशनः।। 18।।

The *parada* which is *shuddha* (purified) can sustain the heat

of the fire. (i.e. it does not evaporate on heating) and that which is *murcchita* can eradicate all kinds of diseases.

Mrita Parada

निष्कम्पवेगस्तीव्राग्नौ आयुरारोग्यदो मृतः।। 19।।

The *parada* which is *mrita* (that which is converted into *bhasma*) is not affected (evaporate) even by intensive heat of the fire. Such a *parada* can impart health and longivity.

Naisargika Doshas of Parada

विषं वह्निर्मलश्चेति दोषा नैसर्गिकास्त्रयः।
रसे मरणसन्तापमूर्च्छानां हेतवः क्रमात्।। 20।।

Visha, vahni, and *mala doshas* are said to be the *naisargika* (naturally inherent) *doshas* (blemishes) of *parada*. They cause death, burning sensation and coma, respectively.

Yougika Doshas of Parada

यौगिकौ नागवङ्गौ द्वौ तौ जाड्याध्मानकुष्ठदौ।। 21।।

Naga and *vanga* are two *yougika* (adulterated with lead and tin) *doshas* which cause heaviness, flatulence and skin disorders.

Aupadhika Doshas of Parada

औपाधिकाः पुनश्चान्ये कीर्तिताः सप्त कञ्चुकाः।
भूमिजा गिरिजा वार्जा द्वे च द्वे नागवङ्गजे।। 22।।

Apart from the above *doshas, parada* possesses what are called *aupadika doshas* (acquired blemishes) which are also known as *saptakanchuka doshas.* They are, one each of *bhumija, khanija* and *jalaja* and two each of *naga* and *vanga* (thus seven in total) *doshas.*

द्वादशैते रसे दोषाः प्रोक्ता रसविशारदैः।। 23।।

Thus, there are totally twelve types of blemishes present in *parada* according to the scholars of Rasashastra.

Sapta Kanchukas

पर्पटी पाटिनी भेदी द्रावी मलकरी तथा।
अन्धकारी तथा ध्वाङ्क्षी विज्ञेया: सप्त कञ्चुका:।। 24।।

Parpati, patini, bhedi, dravi, malakari, andhakari, and *dvankshi* are seven *kanchukas.*

Symptoms Caused by Doshas

भूमिजा: कुर्वते कुष्ठं गिरिजा जाड्यमेव च।
वारिजा वातसङ्घातं दोषाढ्यं नागवङ्गयो:।। 25।।

The *bhumija dosha* of *parada* cause *kushta, girija dosha* causes *jadatva* and *varija dosha* causes aggravation of *vata dosha* (diseases of *vata*). Similarly *naga* and *vanga doshas* aggravate all the three *doshas* and cause many disorders in the body.

तस्मात्सूतविधानार्थं सहायैर्निपुणैर्युत:।
सर्वोपस्करमादाय रसकर्म समारभेत्।। 26।।

As said above *parada* possesses many blemishes and they can cause many disorders in the body. Hence, *parada* should be subjected to different *samskaras* (mercurial operations) by acquiring all the facilities and with the help of skilled assistants.

Quantity of Parada for Samskara

द्वे सहस्रे पलानां तु सहस्रं शतमेव वा।
अष्टाविंशत्पलान्येव दश पञ्चैकमेव वा।। 27।।
पलार्धेनैव कर्त्तव्य: संस्कार: सूतकस्य च।
सुदिने शुभनक्षत्रे रसशोधनमारभेत्।। 28।।

In order to perform these *samskaras* of *parada,* the quantity of *parads* should be starting from two thousand *pala* to one thousand *pala* or one hundred *pala* or twenty eight *pala* or ten *pala* or five *pala* or one *pala* or at lest half *pala.* The *shodhana* operation of *parada* is initiated only on the auspicious day.

Svedana Samskara of Parada

त्र्यूषणं लवणासुर्यौ चित्रकार्द्रकमूलकम्।
क्षिप्त्वा सूतो मुहु: स्वेद्य: काञ्जिकेन दिनत्रयम्।। 29।।

Shunthi, maricha, pippali, saindhava lavana, sarshapa, chitraka, ardraka, and *mulaka,* are rubbed in *kanji* to prepare the bolus. This bolus is kept in a strong cloth, and *parada* is placed inside the bolus. A *potali* is made to perform *svedana* in *kanji* for three days in *dolayantra.*

Mardana Samskara of Parada

गृहधूमेष्टिकाचूर्णं तथा दधि गुडान्वितम्।
लवणासुरिसंयुक्तं क्षिप्त्वा सूतं विमर्दयेत्।। 30।।
षोडशांशं प्रतिद्रव्यं सूतमानान्नियोजयेत्।
सूतं क्षिप्त्वा समं तेन दिनानि त्रीणि मर्दयेत्।। 31।।
जीर्णाभ्रकं तथा बीजं जीर्णसूतं तथैव च।
नैर्मल्यार्थं हि सूतस्य खल्ले धृत्वा विमर्दयेत्।। 32।।
गृह्णाति निर्मलो रागान् ग्रासे ग्रासे विमर्दित:।
मर्दनाख्यं हि तत्कर्म तत् सूतगुणकृद्भवेत्।। 33।।

Grihadhuma, ishtika (brick powder), the curds, jaggery, *saindhava lavana* and *rajika* powder are taken along with *parada* and ground in a *khalva.* Each of the drug should be 1/16 part of *parada.* The grinding is continued for three days. Then the *parada* is washed and mixed with 1/16 part of *jirna abhraka* (mica) and 1/16 part of *suddha svarna* (gold) which are added one by one and ground. Thus each *grasa* is to be added and grinding is continued. By this, *parada* attains very clear, distinct colour. This process is called *mardana samskara.* This helps in increasing the qualities of the *parada.*

Murcchana Samskara of Parada

गृहकन्या मलं हन्यात् त्रिफला वह्निनाशिनी।
चित्रमूलं विषं हन्ति तस्मादेभि: प्रयत्नत:।। 34।।

मिश्रितं सूतकं द्रव्यैः सप्तवाराणि मूर्च्छयेत्।
इत्थं सम्मूर्च्छितः सूतः दोषशून्यः प्रजायते।। 35।।

The *maladosha* of *parada* is eradicated by juice of *kumari*, *vahnidosha* by *triphala* and *vishadosha* by *chitraka*. Hence, *parada* is ground with all the three drugs, i.e. juice of *kumari*, powder of *triphala* and powder of root of *chitraka* for seven days, which makes seven *murcchana*. By this process, *parada* becomes free of blemishes. (According to some scholars, *parada* is ground with each drugs separately for seven days. *Murcchana* is homogeneous mixture of *parada* and *kalka* of the above drugs).

Utthapana Samskara of Parada

अस्माद्विरेकात्संशुद्धो रसः पात्यस्ततः परम्।
उद्धृतः काञ्जिकक्काथात् पूतिदोषनिवृत्तये।। 36।।

The *parada* which is purified, obtained from the *murcchana* process and which is in the from of *nashtapishta* (homogeneous) is subjected to *patana* (sublimation) process (in *damaru yantra*). This eradicates the *putidosha* (blemishes called *naga* and *vanga*).

Patana Samskara of Parada

Urdhva Patana

ताम्रेण पिष्टिकां कृत्वा पातयेदूर्ध्वभाजने।
वङ्गनागौ परित्यज्य शुद्धो भवति सूतकः।
शुल्बेन पातयेत्पिष्टीं त्रिधोर्ध्वं सप्तधा त्वधः।। 37।।

Shuddha tamra churna (copper filings), taken 1/4 of *parada*, is mixed in it and made into *pishti* (soft bolus). It is then kept in *urdhva patana yantra* and *patana* (sublimation) is done. This process is repeated for three times (each time adding and rubbing with copper filings). Similarly (as said below) the *adhahpatana* is also performed.

Adhahpatana

Method I

त्रिफला शिग्रुशिखिभिर्लवणासुरिसंयुतैः।
नष्टपिष्टं रसं कृत्वा लेपयेच्चोर्ध्वभाजने।
ततो दीप्तैरधःपातमुत्पलैस्तत्र कारयेत्।। 38।।

The drugs, viz. *haritaki*, *amalaki*, *bibhitaki*, *shigru* (drum stick), *chitrakamula*, *saindhava lavana* and *rajika* each 1/16 part of *parada* are taken, powdered, mixed together and added to *parada*. Then grinding is done along with *parada* (with *kanji*). This mixture when attains the *nashtapishta* stage, it is smeared inside the upper vessel of *adhapatana yantra* and heated by lit cowdung cakes. This makes the *adhapatana* (downward sublimation) of *parada*.

Method II

हरिद्राऽङ्कोलशम्पाककुमारीत्रिफलाग्निभिः।
तण्डुलीयकवर्षाभूहिङ्गुसैन्धवमाक्षिकैः।। 39।।
पिष्टं रसं सलवणैः सर्पाक्ष्यादिभिरेव वा।
पातयेदथवा देवि व्रणघ्नीयक्षलोचनैः।। 40।।

Haridra, *ankola*, *aragvadha*, *kumari*, *haritaki*, *bibhitaki*, *amalaki*, *chitraka*, *tanduliyaka*, *punarnava*, *hingu*, *saindhava lavana* and honey (1/16 parts) each mixed with *parada* and rubbed (in *kanji*) placed in *adhapatana yantra* and processed.

Parada is ground with *sarpakshadi varga* drugs (each 1/16 part) along with *lavana* and subjected to *adhahpatana* process. Or it can also be done by grinding *parada* with *vranaghni* (*kumari*) or bark of *sala vriksha* and *lochana* (*ushira*) and subjected to the same process.

इत्थं ह्यधोर्ध्वपातेन पातितोऽसौ यदा भवेत्।
तदा रसायने योग्यो भवेद् द्रव्यविशेषतः।। 41।।

Thus, the *parada* obtained after subjecting to the processes of

urdhvapatana and *adhapatana*, it can be used for preparing the *rasayana yoga* by adding various other drugs into it.

अथवा दीपकयन्त्रे निपातितः सर्वदोषनिर्मुक्तः ।। 42 ।।

Parada become free from all kinds of blemishes, when it is subjected to above said *patana* processes or if the *patana* process is performed in *dipika yantra.*

Tiryak Patana of Parada

तिर्यक्पातनविधिना निपातितः सूतराजश्च ।
श्लक्ष्णीकृतमभ्रदलं रसेन्द्रयुक्तं तथाऽऽरनालेन ।। 43 ।।
खल्वे दत्त्वा मृदितं यावत्तन्नष्टपिष्टतामेति ।
कुर्यात्तिर्यक्पातनपातितसूतं क्रमेण दृढवह्निम् ।। 44 ।।
संस्वेद्य: पात्योऽसौ न पतति यावद्दृढश्चाग्नौ ।
तदाऽसौ शुद्ध्यते सूतः कर्मकारी भवेद् ध्रुवम् ।। 45 ।।

The *parada* which has undergone the process of *patana*, if subjected to *tiryakapatana* (distilliation), all the blemishes are eradicated from it. The process is as follows :

Parada is mixed with 1/4 part of finely powdered *abhraka* (or *dhanyabhraka*) and ground with *kanji* until the mixture attains *nastapisha.* It is then placed in *tiryakpatana yantra* and heat is given in stages (mild, moderate and intensive). The *parada* obtained by this method is placed in *dolayantra* and *svedana* is done. Again, it is added with *abhraka* powder, ground and subjected to *patana* process. These processes are continued until the *parada* can sustain the effect of intensive heat (until it reaches the stage when it does not evaporate on heating). The *parada* thus obtained is pure as well as extremely active.

Effects of Mardana of Parada

मर्दनैर्मूर्च्छनैः पातैर्मन्दः शान्तो भवेद्रसः ।। 46 ।।

Due to the processes like *mardana, murcchana, utthapana* and *patana, parada* becomes somewhat sluggish and calm.

Rodhana Samskara of Parada

सृष्ट्यम्बुजैर्निरोधेन ततो मुखकरो भवेत् ।
स्वेदनादिवशात्सूतो वीर्यं प्राप्नोत्यनुत्तमम् ।। 47 ।।

If *parada* is kept sealed in *srishtyambuja* (the solution of *saindhava lavana*), it attain the *mukha* (for *grasa bhakshana*), or *parada* can be subjected to *svedana* in the same *srishtyambuja*, for the enhancement of potency.

Niyamana Samskara of Parada

Method I

नियम्योऽसौ ततः सम्यक् चपलत्वनिवृत्तये ।
कर्कोटीफणिनेत्राभ्यां वृश्चिकाम्बुजमार्कवैः ।
समं कृत्वाऽऽरनालेन स्वेदयेच्च दिनत्रयम् ।। 48 ।।

A kind of *chapalatva* (unsteadiness) occurs in *parada* due to *rodhana samskara.* This can be eradicated by performing *niyamana samskara. Karkoti* (cucumber), *sarpakshi, vrishchika, saindhava lavana* and *bhringaraja* are rubbed together to prepare the bolus. Then *parada* is kept in the midst of this bolus and tied into a cloth to make a *potali.* This *potali* then, is boiled in *kanji* in *dolayantra* for three days.

Method II

मरिचैर्भूखगयुक्तैर्लवणासुरिशिग्रुटङ्कणोपेतैः ।
काञ्जिकयुक्तैस्त्रिदिनं ग्रासार्थी जायते स्वेदात् ।। 49 ।।

Maricha, bhunaga, (earthworms), *saindhava lavana, rajika,* bark of *shigru, tankana* (borax) are to be triturated to make bolus. Then *parada* is kept inside this bolus and placed in the *potali* to boil it in *kanji* for three days in *dolayantra.* This makes *parada grasarthi* (hungry).

Dipana Samskara of Parada

Method I

त्रिक्षारसिन्धुखगभूशिखिशिग्रुराजीतीक्ष्णाम्लवेतसमुखैर्लवणोषणाम्लैः।
नेपालताम्रदलशोषितमारनाले साम्लासवाम्लपुटितं रसदीपनं तत्।। 50 ।।

The bolus prepared out of the drugs viz., *yavakshara, svarjika kshara, tankana* (borax), *saindhava lavana*, earthworms, *chitraka*, bark of *shigru, rajika, tikshna* (*pippali* or *chavya*), *amlavetasa* which is a combination of sour, alkaline, and salty substances. This bolus is applied over the thin leaves of copper and kept immersed in *kanji* until *kanji* becomes extremely sour. Then *svedana* process is performed in the same *kanji* (later, according to some scholars, *parada* should be rubbed in *amla* or *asavamla*). This *dipana samskara* enhances the *bhakshana* (capacity to consume) quality.

Method II

स्वेदयेदासवाम्लेन वीर्यतेजः प्रवृद्धये।
यथोपयोगं स्वेद्यः स्यान्मूलिकानां रसेषु वा।। 51 ।।

In order to enhance the *virya* (*teja*-potency) of *parada*, it should be subjected to *svedana* process in *asavamla*. *Svedana* is carried out after rubbing with juice of *rasamulikas*.

Rasamulikas

सर्पाक्षी क्षीरिणी वन्ध्या मत्स्याक्षी शङ्खपुष्पिका।
काकजङ्घा शिखिशिखा ब्रह्मदण्ड्याखुपर्णिका।। 52 ।।
वर्षाभूः कम्बुकी दूर्वा शैर्यकोत्पलशिम्बिकाः।
शतावरी वज्रलता वज्रकन्दाग्निकर्णिकाः।। 53 ।।
श्वेतार्कशिग्रुधत्तूरमृगदूर्वारसाङ्कुशाः।
रम्भा रक्ताभनिर्गुण्डी लज्जालुः सुरदालिका।। 54 ।।
मण्डूकपर्णी पाताली चित्रकं ग्रीष्मसुन्दरा।
काकमाची महाराष्ट्री हरिद्रा तिलपर्णिका।। 55 ।।

जाती जयन्ती श्रीदेवी भूकदम्बः कुसुम्भकः।
कोशातकी नीरकणा लाङ्गली कटुतुम्बिका।। 56 ।।
चक्रमर्दोऽमृता कन्दः सूर्य्यावर्तेषु पुङ्खिका।
वाराही हस्तिशुण्डी च प्रायेण रसमूलिकाः।। 57 ।।

Sarpakshi, kshirini, vandhya, matsyakshi, shankhapushpi, kakajangha, shikhishikha (*mayurashikha*), *brahmadandi, akhuparni, punarnava, kambuki* (variety of *ashvagandha*), *durva, shairyaka* (*sahachara*), *kamala, shimbika* (*mudgaparni*), *shatavari, vajralata, agnimantha, shvetharka, shigru, dhattura, mrigadurva, rasankusha, rambha* (*kadali*), *raktabha, nirgundi, lajjalu, suradalika* (*devadali*), *mandukaparni, patali, chitaka, grishma sundara* (*dronapushpi*), *kakamachi, maharashtri,* (*kantakari*), *haridra, shridevi* (*tulasi*), *bhukadamba* (*mundi*), *kusambhaka, langali, tilaparnika* (*suryavarata*), *jati, jayanti, kautumbi, chakramarda, amrita* (*amrata-kanda?*) *suryavarta, punkhika* (*sharapunkha*), *varahi* (*varahi kanda*) and *hastishundi* are the herbs which are named as *rasamulikas.*

Uses of Rasamulikas

रसस्य भावने स्वेदे मूषालेपे च पूजिताः।। 58 ।।

The *rasamulikas* which are listed above are useful in *parada karma* (mercurial processes) for giving *bhavana,* in *svedana* process, for extracting juice as well as in preparing decoctions and for internal as well as external application in *musha* (crucible).

इत्यष्टौ सूतसंस्काराः समा द्रव्ये रसायने।
कार्यास्ते प्रथमं शेषा नोक्ता द्रव्योपयोगिनः।। 59 ।।

Thus, the eight *samskaras* from *svedana* to *dipana* of *parada* have been explained as above. All the eight *samskaras* are necessary for both *rasayana* processes as well as alchemical practices (*lohavidya*). Unless these *samskaras* are carried out, *parada* can not be used in the preparation of medicaments. As the remaining ten *samskaras* are useful only in *lohavidya* (alchemical practices) they are not explained here.

RASABANDHAS

पञ्चविंशतिसङ्ख्याकान् रसबन्धान् प्रचक्ष्महे ।। 60 ।।

The *rasabandhas*, which are twenty five, will be explained now.

Definition of Bandha

येन येन हि चाञ्चल्यं दुर्ग्रहत्वञ्च नश्यति ।
रसराजस्य सम्प्रोक्तो बन्धनार्थो हि वार्तिकैः ।। 61 ।।

Bandha or *Bandhana* is the process by which the properties of *Parada* such as mobility and inability to contain, are conquered.

Types of Bandha

हठारोटौ तथाऽऽभासः क्रियाहीनश्च पिष्टिका ।
क्षारः खोटश्च पोटश्च कल्कबन्धश्च कज्जली ।। 62 ।।
सजीवश्चैव निर्जीवो निर्बीजश्च सबीजकः ।
शृङ्खलाद्रुतिबन्धौ च बालकश्च कुमारकः ।। 63 ।।
तरुणश्च तथा वृद्धो मूर्तिबद्धस्तथाऽपरः ।
जलबन्धोऽग्निबन्धश्च सुसंस्कृतकृताभिधः ।
महाबन्धाभिधश्चेति पञ्चविंशतिरीरिताः ।। 64 ।।

There are totally twenty five *bandhas* viz. (1) *hatha bandha,* (2) *arota bandha,* (3) *abhasa bandha,* (4) *kriyahina bandha,* (5) *pishtika bandha,* (6) *kshara bandha,* (7) *khota bandha,* (8) *pota bandha,* (9) *kalka bandha,* (10) *kajjili bandha,* (11) *sajiva bandha,* (12) *nirjiva bandha,* (13) *nirbija bandha,* (14) *sabija bandha,* (15) *shrinkhala bandha,* (16) *druti bandha,* (17) *balaka bandha,* (18) *kumaraka bandha,* (19) *taruna bandha,* (20) *vriddha bandha,* (21) *murti bandha,* (22) *jala bandha,* (23) *agni bandha,* (24) *susamskrita bandha* and (25) *maha bandha.*

Jaluka Bandha

केचिद्वदन्ति षड्विंशो जलूकाबन्धसंज्ञकः ।
स तावन्नेष्यते देहे स्त्रीणां द्रावेऽतिशस्यते ।। 65 ।।

There is one more, twenty six *bandha* called *Jaluka bandha* according to some scholars. However, it is not considered among the *rasabandhas* as this is not used in common physiological disorders. It is used only to make the women achieve quicker orgasm during the intercourse.

Hatha Bandha

हठो रसः स विज्ञेयः सम्यक्शुद्धिविवर्जितः ।
स सेवितो नृणां कुर्यान्मृत्युं वा व्याधिमुद्धतम् ।। 66 ।।

Hatha bandha is that which is performed without proper *shodhana* of *parada.* Such *parada,* if consumed, may cause death or deadly diseases.

Arota Bandha

सुशोधितो रसः सम्यगारोट इति कथ्यते ।
स क्षेत्रीकरणे श्रेष्ठः शनैर्व्याधिविनाशनः ।। 67 ।।

Arota bandha is, making the *bandha* after purifying the *parada.* Such a *parada* is said to be excellent remedy for *kshetrikarana* (*kshetra* is the body, to keep the body healthy). This eradicates all the diseases.

Abhasa Bandha

पुटितो यो रसो याति योगं मुक्त्वा स्वभावताम् ।
भावितो धातुमूलद्यैराभासो गुणवैकृते ।। 68 ।।

The *parada* when attains the solid state after relinquishing its unsteadiness, by the combination of metals, by grinding with various herbs and by subjecting it to *putapaka* (heating in *puta*). This *bandha* is called *abhasa bandha.*

Kriyahina Bandha

अंसशोधितलोहाद्यैः साधितो यो रसोत्तमः ।
क्रियाहीनः स विज्ञेयो विक्रियां यात्यपथ्यतः ।। 69 ।।

Parada is subjected to *bandha*, after processed with the metals, which are not undergone the process of *shodhana*. If such a *parada* is consumed without following the dietary restrictions, it causes dreadful disorders in the body.

Pishtika Bandha

तीव्रातपे गाढतरावमर्दात् पिष्टी भवेत्सा नवनीतरूपा।
ख्यातः स सूतः किल पिष्टिबद्धः सन्दीपनः पाचनकृद्विशेषात्।। 70।।

Parada is ground in a *khalva* and triturated intensively under the sunshine, by which it attains the form of *pishti* (paste) like butter. Such a *bandha* is called *pishtika bandha*. It is a good appetizer and digests the food very quickly.

Kshara Bandha

शङ्खशुक्तिवराटाद्यैर्योऽसौ संसाधितो रसः।
क्षारबन्धः परं दीप्तिपुष्टिकृच्छूलनाशनः।। 71।।

Kshara bandha is achieved by processing the *parada* with *shankha, shukti* (pearl shell) and *kapardika* (cowri). Such *kshara bandha parada* enhances the appetite. It nourishes the body as well as reduces the abdominal pain.

Khota Bandha

बन्धो यः खोटतां याति ध्मातो ध्मातः क्षयं व्रजेत्।
खोटबन्धः स विज्ञेयः शीघ्रं सर्वगदापहः।। 72।।

Parada is made static with the help of various processes and such a *parada* if does not evaporate on heating in an intensive fire (or evaporates very slowly), the *bandha* is called *khota bandha*. This *parada* can eradicate all kinds of diseases very quickly.

Pota Bandha (Rasa Parpati)

द्रुतकज्जलिका मोचापत्रके चिपिटीकृता।
स पोटः पर्पटी सैव बालाद्यखिलरोगनुत्।। 73।।

Kajjali is melted and poured over a *banana* leaf kept upon the cowdung bed and pressed to a thin scale. This is *pota bandha* which is also called *parpati bandha*. This can destroy the diseases occured in all the ages.

Kalka Bandha

स्वेदाद्यैः साधितः सूतः पङ्कत्वं समुपागतः।
कल्कबद्धः स विज्ञेयो योगोक्तफलदायकः।। 74।।

Parada, after undergoing various processes like *svedana* etc. obtains the state resembling to slime. Such a state is called *kalka bandha*. If such *parada* is combined with different drugs, all the desired effects of such a *yoga* can be expected.

Kajjali Bandha

कज्जली रसगन्धोत्था सुश्लक्ष्णा कज्जलोपमा।
तत्तद्योगेन संयुक्ता कज्जलीबन्ध उच्यते।। 75।।

Parada and *gandhaka* (after *shodhana*) are together triturated well to prepare *kajjali* (a fine black powder). It is called *kajjali bandha*. This *kajjali* is mixed with different *yogas* and such *yogas* are also called *kajjali bandha*.

Sajiva Bandha

भस्मीकृतो गच्छति वह्नियोगात् सूतः सजीवः खलु सम्प्रदिष्टः।
संसेवितोऽसौ न करोति भस्मकार्यं जराव्याधिविनाशनञ्च।। 76।।

Parada which is in the form of *bhasma*, if heated on fire, when evaporates, such a *bhasma* is called *sajiva bandha*. Such *parada* if consumed does not impart any therapeutical actions. It can not eradicate the senility and diseases as well.

Nirjiva Bandha

जीर्णाभ्रको वा परिजीर्णगन्धो भस्मीकृतश्चाखिललौहमौलिः।
निर्जीवनामा हि स भस्मसूतो निःशेषरोगान्विनिहन्ति सद्यः।। 77।।

Bhasma of the *parada* is prepared by performing *abhraka jarana* or *bandhaka jarana*. Such *bhasma* is superior to even the *bhasmas* of all the metals and can eradicate all the diseases quickly.

Nirbija Bandha

रसस्तु पादांशसुवर्णजीर्णः पिष्टीकृतो गन्धकयोगतश्च।
तुल्यांशगन्धैः पुटितः क्रमेण निर्बीजनामा सकलामयघ्नः।। 78।।

Parada jarana is performed by adding four parts of gold. Then added with equal quantity of *gandhaka*, ground to prepare the *pishti*. This *pishti* is kept inside equal quantity of *gandhaka* (or along with it), confined to *sharava samputa* and subjected to *puta*, giving gradual heat. Such a *bandha* is called *nirbija bandha*, which can cure all the diseases.

Sabija Bandha

पिष्टीकृतैरभ्रकसत्त्वहेमतारार्ककान्तैः परिजारितो यः।
हतस्ततः षड्गुणगन्धकेन स बीजबद्धो विपुलप्रभावः।। 79।।

Parada jarana is carried out with *abhraka sattva*, *svarna*, *rajata*, *tamra*, and *kantaloha*, and the *parada pishti* is obtained. This is mixed with six parts of *gandhaka* and *bhasma* is prepared by giving *puta*. It is called *sabija bandha*. Such a *parada* is said to be extremely potential.

Shrinkhala Bandha

वज्रादिनिहतः सूतो हतः सूतः समोऽपरः।
शृङ्खलाबद्धसूतस्तु देहलोहविधायकः।
चित्रप्रभावां वेगेन व्याप्तिं जानाति शङ्करः।। 80।।

Parada bhasma, which is prepared with *vajra* etc. is mixed with equal quantity of the *bhasma* of *parada* prepared with the help of metals, *gandhaka* and herbs. The mixture is ground well. Such a mixture of *parada bhasma* is called *shrinkhala bandha*. Only Lord Shankara knows that how quickly this preparation with its specific potency can spread throughout the body.

Druti Bandha

युक्तोऽपि बाह्यद्रुतिभिश्च सूतो बन्धं गतो वा भसितस्वरूपः।
स राजिकापादमितो निहन्ति दुस्साध्यरोगान्द्रुतिबद्धनामा।। 81।।

Parada which is processed with the help of *bahya druti* is converted into *bhasma*. This is called *druti bandha*. It can eradicate even incurable diseases, if consumed for few days, in the dosage equivalent to quater of *sarshapa*.

Balaka Bandha

समाभ्रजीर्णः शिवजस्तु बालः संसेवितो योगयुतो जवेन।
रसायनो भाविगदापहश्च सोपद्रवारिष्टगदान्निहन्ति।। 82।।

Parada which is subjected to *jarana* by equal quantity of *abhraka*, is converted into *bhasma*. It is called *balaka bandha*. If such a *bala bandha parada* is used along with different *anupanas* or yogas (medicaments), can act as *rasayana* as well as prevents the attack of diseases. It can also destroy the diseases along with their *upadravas* (complications) and *arishta lakshanas* (fatal signs).

Kumara Bandha

हरोद्भवो यो द्विगुणाभ्रजीर्णः स स्यात्कुमारो मिततण्डुलोऽसौ।
त्रिः सप्तरात्रैः खलु पापरोगसङ्घातघाती च रसायनश्च।। 83।।

Kumara baddha parada is that *bhasma* which is prepared after subjecting *parada* to *jarana* process with twice the amount of *abhraka*. Such *parada* is consumed in the dosage equivalent to a *tandula* (rice) for three weeks, to destroy the diseases (like *kushta*, *svetakushta* etc.) occured by sins. This *parada* is *rasayana* as well.

Taruna Bandha

चतुर्गुणव्योमकृतशनोऽसौ रसायनाग्र्यस्तरुणाभिधानः।
स सप्तरात्रात्सकलामयघ्नो रसायनो वीर्यबलप्रदाता।। 84।।

The *bhasma* of the *parada* which is prepared after *jarana* with four times *abharaka*, is called *taruna bandha*. Such a *parada* is said to be the best among all *rasayanas*. If it is consumed for seven days, it can eradicate all the diseases and enhance the vital force of the body and strength. Obviously, it acts as *rasayana* too.

Vriddha Bandha

यस्याभ्रकः षड्गुणितो हि जीर्णः प्राप्ताग्निसख्यः स हि वृद्धनामा।
देहे च लोहे च नियोजनीयः शिवादृते कोऽस्य गुणान् प्रवक्ति।। 85।।

Parada is subjected to *jarana* with six times *abhraka*, to prepare *niruttha bhasma* (which can sustain heat). It is called *vriddha bandha*. It is useful in both *lohavidya* and *dehavidya*. Nobody can explain its qualities, other than Lord Shiva himself.

Murti Bandha

यो दिव्यमूलिकाभिश्च कृतोऽत्यग्निसहो रसः।
विनाभ्रजारणात्स स्यान्मूर्तिबन्धो महारसः।। 86।।
अयं हि जार्यमाणस्तु नाग्निना क्षीयते रसः।
योजितः सर्वयोगेषु निरौपम्यफलप्रदः।। 87।।

Without subjecting to *jarana* with *abhraka*, if *parada* is converted into *bhasma* (which can sustain heat), with the help of celestial (*divya*) herbs, it is called *murti bandha*. Even if it is heated on fire, it does not reduce in quantity. Such a *murti baddha parada* can produce wonderful results.

Jala Bandha

शिलातोयमुखैस्तोयैर्बद्धोऽसौ जलबन्धवान्।
स जरारोगमृत्युघ्नः कल्पोक्तफलदायकः।। 88।।

Parada bandha is achieved with the help of the *shilatoya* (specific waters), is called *jalabandha*. Such a *parada* can eradicate senility, diseases and death. If used along with various

combinations, such yogas can impart all the beneficial effects rendered to them. (*Shilatoya-gandhaka* and *haratala* are boiled in water in a vessel. After adequate boiling when the bubbles appear, the vessel is taken away from the fire, cooled and the watery part is decanted. Such a water is known as *shilatoya*).

Agni Bandha

केवलो योगयुक्तो वा ध्मातः स्याद्गुटिकाकृतिः।
अक्षीणश्चाग्निबद्धोऽसौ खेचरत्वादिकृत्स हि।। 89।।

Parada alone or combined with different substances is heated by blowing in the fire. If such a process converts the *parada* into *gutika* (a pill) which does not reduce on heating, is called *agni bandha*. This *gutika* if kept in the mouth can yield *khechari shakti* (power to fly), as well as many other wonderful powers.

Susamskrita Bandha

विष्णुक्रान्ताशशिलताकुम्भीकनकमूलकैः।
विशालानागिनीकन्दव्याघ्रपादीकुरण्टकैः।। 90।।
वृश्चिकालीभशुण्डीभ्यां हंसपादीसहासुरैः।
अप्रसूतगवां मूत्रैः पिष्टं बाकुलके पचेत्।। 91।।
पक्वमेवं मृतैर्लोहैर्मर्दितं विपचेद्रसम्।
यन्त्रेषु मूर्च्छा सूतानामेष कल्पः सुसंस्कृतः।। 92।।

A bolus is prepared by grinding the herbs like *vishnukranta*, *somalata*, *kumbhi*, *dhattoramula*, *nagini kanda* (*laksmana*) *vyaghripadi*, *kurantaka* (*saireyaka*) *vraschikali*, *hastishundi*, *hamsapadi*, *saha* and *sarshapa*, in cow's urine. *Parada* is ground with the bolus, a ball is prepared and heated in *valuka yantra*. The *bhasma* which is yielded, is mixed with metallic *bhasmas*, confined to *sharava samputa*, put into suitable *yantra* and *murcchana* of *parada* is carried out. Such *bandha* is called *susamskrita bandha*.

Maha Bandha

हेम्ना वा रजतेन वा सहचरो ध्मातो व्रजत्येकताम्,
अक्षीणो निबिडो गुरुश्च गुटिकाकारश्च दीर्घोज्ज्वल:।
चूर्णत्वं पटुवत्प्रयाति निहतो घृष्टो न मुञ्चेन्मलम्,
निर्गन्धो द्रवति क्षणात्स हि महाबन्धाभिधानो रस:।। 93 ।।

Maha bandha of *parada* is that which can mix with *svarna* and *rajata* when blowed in fire with them and which does not decrease, that which looks massive, that which is heavy, having the shape of *gutika* (pill), lustrous, that which does not break like salt, that which does not leave blemishes on rubbing, though melts a little on heating, but does not emit any smell.

Jaluka Bandha

Method I

सूते गर्भनियोजितार्धकनके पादांशनागेऽथवा,
पञ्चाङ्गुष्ठकशाल्मलीकृतमदाश्लेष्मातबीजैस्तथा।
तद्वत्तेजिनिकोलकाख्यफलजैश्चूर्णं तिलं पत्रकं,
तप्ते खल्लतले निधाय मृदिते जाता जलूका वरा।। 94 ।।

Quarter part of *naga* (lead) or half part of *svarna* is mixed with one part of *parada* and *jarana* is done. Then this is mixed with 1/16 part (of *parada*) powder of each of *eranda bija*, *shalmali pushpa* and bark, *bhanga*, *shleshmataka bija*, *tejini*, *kolabija*, *tila* and *tejapatra,* triturated well in *taptakhalva* to prepare a good *jaluka* (leach shaped wick).

सैषा स्यात्कपिकच्छुरोमपटले चन्द्रावतीतैलके,
चन्द्रे टङ्कणकामपिप्पलिजले स्विन्ना भवेत्तेजिनी।
तप्ते खल्वतले विमर्द्य विधिवद्यत्नाद्वटी या कृता,
सा स्त्रीणां मददर्पनाशनकरी ख्याता जलूका वरा।। 95 ।।

Then 1/16 (of *parada*) part of each of oil of *bakuchi*, *kapikachhu* with its *roma* (hairs) and seeds, *karupura*, *tankana* (borax) and

damanaka are mixed with the *jaluka* and subjected to *svedana* in the decoction of *pippali* or *ashvattha*. It is then ground with effort, in *taptakhalva* and a *vati* (in the shape of *jaluka*) is prepared. This *jaluka* is said to be excellent and extremely effective and can destroy the arrogance of a sensual woman boasting of powerful sexual vigour.

बाल्ये चाष्ट्याङ्गुला योज्या यौवने च दशाङ्गुला।
द्वादशैव प्रगल्भानां जलौका त्रिविधा मता।। 96 ।।

Jalukas are of three types according to size. One is for teenaged girls, which is eight *angula* in length; another is for young women, measuring ten *angula* and the third one is for middle aged (grown up) women, the length of which is twelve *angula*.

धृत्वा सूतमुखे पात्रे मेषीक्षीरं प्रदापयेत्।
स्थापयेदातपे तीव्रे वासराण्येकविंशति:।। 97 ।।
द्वितीयात्र मया प्रोक्ता जलौका द्रावणे हिता।
पुरुषाणां स्थिता मूर्ध्नि द्रावयेद्वनिताकुलम्।। 98 ।।

The *jaluka* which has been described earlier is kept in a narrow mouthed vessel containing goat's milk and the vessel is placed under hot sunrays. When the milk evaporates completely, again fresh milk is added. This process is carried out for twenty one days. Then the *jaluka* is taken out and the shape is corrected. If a man performs sexual act, with this *jaluka* kept (tied) upon the head, can satisfy many number of women.

Method II

मुनिपत्ररसञ्चैव शाल्मलीवृन्तवारि च।
जातीमूलस्य तोयञ्च शिंशपातोयसंयुतम्।। 99 ।।
श्लेष्मातकफलञ्चैव त्रिफलाचूर्णमेव च।
कोकिलाक्षस्य चूर्णञ्च पारदं मर्दयेद् बुध:।। 100 ।।
जलूका जायते दिव्या रामाजनमनोहरा।
या योज्या कामकाले तु कामयेत्कामिनी स्वयम्।। 101 ।।

The juice of *agastya* leaves, bark or leafbuds of *shalmali*, root

of *jati*, the decoction of the bark of *shinshapa*, the fruit of *shleshmataka*, powders of *triphala* (*haritaki*, *bibhitaki* and *amalaki*) and *kokilaksha* are taken together along with equal quantity of *parada* and ground to prepare a *jaluka*. This celestial *jaluka* can enchant women and if placed in the vagina, makes them extremely sensuous.

Method III

त्रिफलाभृङ्गमहौषधमधुसर्पिश्छागदुग्धगोमूत्रे ।
नागं सप्तनिषिक्तं समरसजारितं जलूका स्यात् ।। 102 ।।

The *naga* (lead) is melted and is poured seven time in each of the docoction of *triphala*, juice of *bhringaraja*, decoction of *shunthi*, honey, ghee, goat's milk and cow's urine. And *jarana* is done along with the equal quantity of *parada* and a *jaluka* is prepared.

Method IV

भानुस्वरदिनसङ्ख्याप्रमाणसूतं गृहीतदीनारम् ।
अङ्कोलराजवृक्षककन्यारसतश्च शोधनं कुर्यात् ।। 103 ।।
शशिलेखावरवर्णी सकोकिलाक्षापामार्गकनकानाम् ।
चूर्णैः सहैकविंशतिदिनानि सम्मर्दयेत् सम्यक् ।। 104 ।।
निशायाः काञ्जिकं यूषं दत्त्वा योनौ प्रवेशयेत् ।
बालमध्यमवृद्धासु योज्या विज्ञाय तत्क्रमात् ।
नीरसानामपि नृणां योषा स्यात् सङ्गमोत्सुका ।। 105 ।।

Jarana is carried out by putting one part of *svarna* in thirty five parts of *parada*. Then this *parada* is subjected to *bhavana* in the decoction prepared by seeds of *ankola*, pulp of *aragvadha* and *kumari* separately for one day in each liquid, in order to make *shodhana*. Then it is mixed with the powders of *bakuchi*, *varavarni* (*malakanguni*), *kokilaksha*, *apamarga*, and *dattura* and ground for twenty one days in the decoction of *haridra*, *kanji* and *yusha* (soup), to prepare a *jaluka*. If this is kept in the vagina of a woman, she would crave for sexual act even with a dull, insipid and hostile man.

Method V

रसभागचतुष्कञ्च वङ्गभागञ्च पञ्चमम् ।
सुरसारसंयुक्तं टङ्कणेन समन्वितम् ।। 106 ।।
त्रिदिनं मर्दयित्वा च गोलकं तं रसोद्भवम् ।
लिङ्गाग्राद्योनिनिक्षिप्तं यावदायुर्वशङ्करम् ।। 107 ।।

The *pishti* (a homogenous mass-amalgamation) is prepared by grinding four parts of *shuddha parada* and five parts of *vanga* (tin) in which one part of *tankana* is added and together ground in the juice of *tulasi*. A small ball is prepared out of this mixture. If a man pushes this ball with his genital organ into the vaginal canal of a woman and has sexual contact, that woman can remain his life long slave.

Method VI

कर्पूरशूरणसुभृङ्गसुमेघनादैर्नागं निषिच्य तु मिथो बलयेद्रसेन ।
लिङ्गस्थितेन वलयेन नितम्बिनीनां स्वामी भवत्यनुदिनं स तु जीवहेतुः ।। 108 ।।

Naga (lead) is melted and immersed for seven times in each of the juices of *surana kanda*, *bhringaraja*, and *meghanada* (*tanduliyaka*). Then equal quantity of *parada* is added and ground to prepare a ring. If this ring is worn by a man at the base of this genital organ and has coitus with a woman, such a woman always stays with that man, accepting him as his life mate.

Method VII

टङ्कणपिप्पलिकाभिः सूरणकर्पूरमातुलुङ्गरसैः ।
कृत्वा स्वलिङ्गलेपं योनिं विद्रावयेत् स्त्रीणाम् ।। 109 ।।

Woman would reach her orgasm very quickly, if a man copulates, after applying on his sex organ with the paste preparad by grinding the powders of *tankana* (borax), *pippali*, *suranakanda* and *karpura* in the juice of *matulunga*.

Method VIII

अग्न्यावर्त्तितनागे हरबीजं निक्षिपेत्ततो द्विगुणम्।
मुनिकनकनागवल्लीरसेन सिञ्च्याच्च तन्मध्यम्।। 110।।
तक्रेण मर्दयित्वा तीक्ष्णेन मदनवलयं कुर्यात्।
रतिसमये वनितानां रतिगर्वविनाशनं कुरुते।। 111।।

Naga (lead) is melted and added to, double the quantity of *parada*. The mixture is poured into the juices of *agastya*, *dhattura*, and *nagavalli* leaves, in that order. Then it is triturated with the help of a rod made of *tikshna loha*, along with *takra* (butter milk) to prepare a *madana valaya* (ring). A man can break the sexual arrogance of a woman, if he engages himself in the sexual act wearing this ring at the genital organ.

Method IX

व्याघ्रीबृहतीफलरससूरणकन्दश्च चणकपत्राम्लम्।
कपिकच्छुवज्रवल्लीपिप्पलिकामम्लिकाचूर्णम्।। 112।।
अग्न्यावर्तितनागं नवसारं मर्दयेदिमैर्द्रव्यैः।
स्मरवलयं कृत्वैतद्वनितानां द्रावणं कुरुते।। 113।।

The melted *naga* is poured in each of either the juice or decoction or solution (according to the substance) derived from fruit of *kantakari* or *brahati*, tuber of *surana*, leaves of *chanaka*, *vajravalli*, *asthisandhanaka*, *pippali* or *ashvattha*, *amlika* and *suddha* (lime) and grinding is done for one day in each. Thus after nine days of grinding a *madana valaya* (ring) is prepared out of the *naga*. Woman can attain the orgasm very quickly, if a man copulates by wearing this ring.

Marana of Parada

Method I

पलाशबीजकं रक्तजम्बीराम्लेन सूतकम्।
सजीवं मर्दितं यन्त्रे पाचितं म्रियते ध्रुवम्।। 114।।

Parada is added with the equal quantity of powders of the seeds of *palasha* and *jivaka kanda* and rubbed in the juice of *raktajambira*. Then a ball is prepared, kept in *sharava samputa* and heated in a specific instrument (*valuka yantra*) to obtain the *bhasma* of *parada*.

Method II

खरमञ्जरिबीजान्वितपुष्करबीजैः सुचूर्णितैः कल्कम्।
कृत्वा सूतं पुटयेत् दृढमूषायां भवेद्भस्म।। 115।।

Parada is triturated in equal quantity powder of each of the seeds of *apamarga* and *kamala* in *kanji*. It is then kept in *sharava samputa* and subjected to *puta*, which will yield the *parada bhasma*.

Method III

काकोदुम्बरिकाया दुग्धेन सुभावितो हिङ्गुः।
मर्दनपुटनविधानात्सूतं भस्मीकरोत्येव।। 116।।

Hingu is given the *bhavana* of latex of *kakodumbara*. It is then added with *parada* and ground with same latex and together heated in *puta* to obtain the *bhasma* of *parada*.

Method IV

देवदालीं हरिक्रान्तामारनालेन पेषयेत्।
तद्द्रवैः सप्तधा सूतं कुर्यान्मर्दितमूर्च्छितम्।। 117।।
तत्सूतं खर्परे दद्याद् दत्त्वा दत्त्वा तु तद्रसम्।
चूल्ल्योपरि पचेच्चाह्नि भस्म स्याल्लवणोपमम्।। 118।।

The juice is extracted from *devadali* and *vishnukranti* after grinding them in *kanji*. In this juice seven *bhavanas* are given to *parada* and *murcchana* is done. It is then kept in a strong earthen *sharava* and heated, adding intermittently the above juice and stirred. This yields the *parada bhasma* looking like *lavana* (white).

Method V

अपामार्गस्य बीजानि तथैरण्डस्य चूर्णयेत्।
तच्चूर्णं पारदे देयं मूषायामधरोत्तरम्।
रुध्वा लघुपुटे पच्याच्चतुर्भिर्भस्मतां नयेत्।। 119।।

A spherical ball is prepared by grinding *parada* in the powder of seeds of *apamarga, eranda* along with *kanji.* Then this ball is kept inside the above powders in a *musha* (crucible), covered in muddy cloth and subjected to four *laghu puta* to obtain the *parada bhasma.*

Method VI

कटुतुम्ब्युद्भवे कन्दे गर्भे नारीपय: प्लुते।
सप्तधा स्वेदित: सूतो म्रियते गोमयाग्निना।। 120।।

Parada is ground with breast milk, is kept inside the fruit of *katutumbi,* making a hole. This fruit of *katutumbi* is then covered properly and given seven *putas.* This would yield a *bhasma* of *parada.*

Method VII

अङ्कोलस्य शिफावारिपिष्टं खल्ले विमर्दयेत्।
सूतं गन्धकसंयुक्तं दिनान्ते तं निरोधयेत्।
पुटयेद् भूधरे यन्त्रे रात्र्यन्ते च मृतो भवेत्।। 121।।

Kajjali is prepared by triturating *parada* and *gandhaka.* Then it is ground in the *juice* of *ankola* root to make a ball. It is kept in *bhudhara yantra* and subjected to *puta* for overnight, to convert *parada* into *bhasma.*

Method VIII

वटक्षीरेण सूताभ्रौ मर्दयेत्प्रहरत्रयम्।
पाचयेत्तेन काष्ठेन भस्मीभवति पारद:।। 122।।

Parada, along with *abhraka* is rubbed in latex of *vata* for three *parahara* (9 hours) while stirring with the rod prepared out of *vata* wood. It is heated in a *sharava.* This converts the *parada* into *bhasma.*

Administration of Rasabhasma

अथातुरो रसाचार्यं साक्षाद्देवं महेश्वरम्।
साधितञ्च रसं शङ्खदन्तवेण्वादिधारितम्।। 123।।
अर्चयित्वा यथाशक्ति देवगोब्राह्मणानपि।
पर्णखण्डे धृतं सूतमद्याद्योग्यानुपानत:।। 124।।

Parada bhasma, the knowledge of which is rendered by the scholars of Rasashastra and by the Lord Maheshvara (Shiva) himself, and which is stored in the container made of *shankha* (conch) or ivory or bamboo is consumed, after worshipping gods, cows, and *brahmins,* keeping it in betel leaves, along with proper *anupana.*

Diet During Administration

घृतसैन्धवधान्याकजीरकार्द्रकसंस्कृतम्।
तण्डुलीयकधान्याकपटोलालाबुकादिकम्।। 125।।
गोधूमजीर्णशाल्यन्नं गव्यं क्षीरं घृतं दधि।
हंसोदकं मुद्गरस: पथ्यवर्ग: समासत:।। 126।।

During the intake of *parada bhasma,* one should consume the vegetables like *tanduliyaka, dhanyaka, patola, alabuka,* etc. which are processed by ghee, *saindhava lavana, dhanyaka, jiraka* and *ardraka* etc. One should also use wheat, old *shali* rice, cow's milk, ghee, *hamsodaka,* and soup prepared by *mudga.* All these are included in the group of wholesome diets.

Unwholesome Diet

बृहती बिल्वकूष्माण्डं वेत्राग्रं कारवेल्लकम्।
माषं मसूरं निष्पावं कुलित्थं सर्षपं तिलम्।। 127।।

लङ्घनोद्वर्तनस्नानताम्रचूडसुरासवान्।
आनूपमांसं धान्याम्लं भोजनं कदलीदले।
कांस्ये च गुरुविष्टम्भि तीक्ष्णोष्णञ्च भृशं त्यजेत्।। 128।।

The edible things like *brihati*, *bilva*, *kushmanda*, *vetragra*, *karavella*, *masha*, *masura*, *nishpava*, *kulattha*, *sarshapa*, *tila*, etc. should not be consumed. Also one should avoid things like *langhana* (abstinence from food), *udvartana* (massage with medicated powders), *snana* (bath), chicken, alcohol, *asava*, (distilled medicated liquids), flesh of animals belonging to *anupa desha*, *kanji*, eating in *banana* leaf, on bronze plate; foods which are heavy, *vishtambhi*, pungent and hot during the consumption of *parada bhasma*.

Kakaradi Gana as Depicted in Devishastra

कण्टारीफलकाञ्जिकञ्च कमठस्तैलं तथा राजिका,
निम्बूकं कतकं कलिङ्गकफलं कूष्माण्डकं कर्कटी।
केकी कुक्कुटकारवेल्लकफलं कर्कोटिकाया: फलं,
वृन्ताकञ्च कपित्थक: खलु गण: प्रोक्त: ककारादिक:।। 129।।
देवीशास्त्रोदित: सोऽयं ककारादिगणो मत:।
शास्त्रान्तरविनिर्दिष्ट: कथ्यतेऽन्यप्रकारत:।। 130।।

Kantakari fruit, *kanji*, *kamatha* (meat of tortoise), oil, white *rajika*, lime fruit, *kataka*, *kalinga* fruit, *kushmanda*, *karkoti*, meats of *keki* (peacock), *kukkuta* (hen), *karavella*, *karkotika*, *vrantaka*, *kapittha*, is the group of substances which is called *kakaradi gana*. This group is depicted in Devishastra.

Kakaradi Gana as Depicted by Krishnadeva

कङ्गु: कन्दुककोलकुक्कुटकलक्रोडा: कुलत्थास्तथा,
कण्टारी कटुतैलकृष्णगलक: कूर्म: कलाय: कणा।
कर्कारुञ्च कटिल्लकञ्च कतकं कर्कोटकं कर्कटी,
काली काञ्जिकमेष कादिकगण: श्रीकृष्णदेवोदिता।। 131।।

Kangu, *kanduka*, *kola*, *kukkuta* (hen), *kala* (peacock), *kroda* (pig), *kulattha*, *kantakari*, *katutaila*, *krishnagalaka* (a bird having black neck belonging to the group of hen), *kurma* (tortoise), *kalaya*, *kana* (pippali), *karkaru* (a variety of *kushmanda*), *katilla*, *karkotaka*, *krishnajiraka* and *kanji* is the group of substances called *kakaradi gana* depicted by *Shrikrishna deva*.

यस्मिन् रसे च कण्ठोक्त्या ककारादिर्निषेधित:।
तत्र तत्र निषेद्धव्यं तदौचित्यमतोऽन्यथा।। 132।।

During the consumption of *parada bhasma*, the substances belonging to the *kakaradi gana*, which are unwholesome should be avoided. However, such substances are used whenever there is a specific indication.

Vyapat (Complications) and Management

उद्गारे सति दध्यन्नं कृष्णमीनं सजीरकम्।
अभ्यङ्गमनिलक्षोभे तैलैर्नारायणादिभि:।। 133।।
अरतौ शीततोयेन मस्तकोपरि सेचनम्।
तृष्णायां नारिकेलाम्बु मुद्गयूषं सशर्करम्।। 134।।

During the intake of *parada*, if one is afflicted with *udgara* (belching), *krishna jiraka* is given with curd or black fish. If there is pain due to aggravation of *vata dosha*, the massage with *narayana taila* etc. which alleviates *vata*, is done. If one feels uneasiness, cold water is sprinkled on the head. 'Thirst is quenched with coconut water mixed with sugar or soup of *mudga*, added with sugar.

द्राक्षादाडिमखर्जूरकदलीनां फलं भजेत्।
रसवीर्यविवृद्ध्यर्थं दधिक्षीरेक्षुशर्करा:।। 135।।
शीतोपचारमन्यच्च-

In order to improve the potency of *parada* during its intake, *draksha*, *dadima*, *kharjura*, *kadali*, curds, milk, *ikshu*, and sugar are given as well as cold therapy is adopted.

Management when Rasabhasma is Stopped

-रसत्यागविधौ पुनः।
भक्षयेद् बृहती बिल्वं सकृत्साधारणो विधिः।। 136।।

इति श्रीवैद्यपतिसिंहगुप्तस्य सूनोर्वाग्भटाचार्यस्य कृतौ रसरत्नसमुच्चये
रसशोधन-बन्धनभस्मजलूकादिनिरूपणं नामैकादशोऽध्यायः।

When the patient stops intake of *parada bhasma,* he should consume the fruits of *brahati* and *bilva* once. Later, other normal dietic measures are continued.

This completes the Eleventh Chapter called *Rasa Shodhana Bandhana Bhasma Jalukadi Nirupana*, in Rasaratna Samuchchaya written by Vagbhatacharya, the son of Shri Vaidyapati Simhagupta.

1
Glossary of Technical Terms

Ama : Literally that, which is undigested, uncooked or unripe. However, technically *ama* is that, which is unproperly formed *ahara rasa* or chyle, due to hypo-functioning of the *agni* (digestive fire). Here, the *annarasa* undergoes fermentation and/ or putrefaction, being retained in the stomach. In such state, the *rasa* or chyle is called *ama*. It is said that this *ama* is a causative factor for further deterioration of physiological *doshas*, which cause diseases.

Amritikarana : Process of potentising the *bhasma*, especially applied in case of *abhraka*, *loha* and *tamra*. As these mineral/ metals need higher temperature and several number of *putas* to reduce into *bhasma*, they are said to acquire qualities such as *rukshata* (dryness), *tikshnata* (sharpness) and *ushnata* (hotness), which may diminish the therapeutical value. In order to reduce such unwanted qualities and to neutralise the toxins, if at all remained, even after *shodhana* and *marana* in the *bhasma*, the process of *amritikarana* is carried out.

Ashtaguna : The eight qualities as described by sage Gautama. They are *daya* (compassion), *kshama* (forgiveness), *anasauya* (non-jealous), *shaucha* (cleanliness). *anayasa* (non-fatigue), *mangala* (auspicious), *akarpanya* (non-greed), *aspriha* (non-selfishness).

Ashtasiddhi : Eight super human powers or achievements. They are *anima* (capability to become extremely minute), *mahima* (to become extremely gigantic), *garima* (to become extremely heavy or supreme), *laghima* (to become extremely light in weight), *prapti* (the capability of touching the moon or any object by sitting on earth), *prakyamana* (the power of achieving or

performing anything desired), *ishitvam* (the capability of ruling over every thing or the mastery), *vashitvam* (to control everything or to mesmerise).

Bhasma : It is alkaline *ash* (calx), prepared by calcination or incineration of mineral drugs along with herbs. It is an ultimate therapeutical state of a mineral or metal, and can be administered to a patient. *(See marana)*

Bhavana : The process of grinding the mineral drugs in the liquids like juices or decoctions of herbs, cow's milk, urines; or any such specified liquids. Generally, the quantity of the liquid should be sufficient to immerse the mineral powder. The grinding or rubbing (in the mortar) is continued, until the semisolid consistency is achieved. This makes one *bhavana*. Again the liquid is added and ground, which completes the second *bhavana*. Number of such *bhavanas* and the liquid depends on the specific mineral in question. According to a different opinion *bhavana* is, keeping the mineral powder, immessed in the liquid overnight.

Bida : The substance or substances which are added to *parada,* which are said to digest the *grasa* put into that *parada*. The *bida* is generally a complex combination of different kinds of alkalies, acidic substances, urines of various animals, salts and different mineral substances like *gandhaka*, *kasisa*, *manahshila* etc. All these are ground with juices of sour plants, to make a paste.

Dehasiddhi : Achievement of immortality. In other sense, making the body very strong and disease free, so that one can live for more than one hundred years. This is said to be achieved with the help of mercury.

Dosha : See *tridosha*.

Druti : The liquid state, especially of metals and minerals. They are melted and by a specific process, made to remain in the liquid state alone, permanently.

Garavisha : A slow poison, especially that which is induced only to harm others. This kind of poison acts slowly and causes

various sustained symptoms making the subject suffer for a long duration.

Grasa : A substance or drug which is put into mercury during the process of *jarana*. Both, the process as well as the substance is called *grasa*. Generally, the substances like sulphur, mica, gold, gemstones etc. are put into mercury as *grasa* to potentise it.

Guna : Property. Inherent quality of a substance, e.g. *guru* (heaviness), *ushna* (hotness) etc. They may be considered as physico-pharmacological properties of a substance (mineral and herbal), which are said to be twenty in number.

Jarana : The process in which mercury is made to absorb and assimilate the substances like gold, mica etc. as *grasa*, added into it (mercury). It is said that, even after adding several *grasa dravyas* (substances), during the process of *jarana*, the ulitmate weight of mercury does not increase. Also, *jarana* is a process, in which after adding *grasa* of liquefied metals, the *sattvas* (extracts), *bida* etc., the mercury is cooked. There are several types of *jarana*, described in the texts, e.g. *sammukha jarana, nirmukha jarana, vriddha jarana* etc.

Jarayu : Amneotic cavity, or the one which is evolved from the placenta. Covering sac of foetus.

Koshtha : Abdominal cavity.

Kshara : Alkali. These are caustic preparations, derived from various plant and mineral materials. The term *kshara* means, to scrape out or cauterize, e.g. *yavakshara*, *svarjika kshara*, *tila kshara*. (See chapter 10)

Lavana : Salts. They are either naturally obtained (like comman salt, rock salt etc.) or prepared artificially (like *audbidha lavana* – salt petre, *bida lavana*, derived from plants). They have therapeutical qualities and also used in *shodhana, marana* etc. (See chapter 10)

Lekhana : To scrape out, to attenuate. Catabolic activity. A function of a group of drugs which attenuate, reduce the muscular and fatty tissues.

Lohasiddhi: Achievement of power of converting the lower metals like tin, lead, copper etc. into higher metals like gold and silver. This is said to be achieved with the help of processed mercury.

Maharasa: Prominent mineral drugs. Literally though, *rasa* is mercury, the term *maharasa* here, means the mineral substances which are useful in mercurial operations. Among such minerals, the *maharasa*, which are eight in number, are prominent. This group of minerals, is called *maharasa*. They are *abhraka, vaikarnta, makshika, vimala, shilajatu, sasyaka, chapala* and *rasaka*.

Marana : The term *marana* means killing, literally. In this process of *marana*, minerals are subjected to incineration, to obtain the *bhasma*. The minerals are taken, after *shodhana* process and ground with a specified liquid to form a paste. This paste is flattened into a small discs (*chakrikas*) and dried. These discs, then are kept in *sharava* (convex earthen plates). Another *sharava* is coverd over the former and the connected peripheral part is sealed with the help of mud-soaked cloth strips. After complete drying, this *sharava samputa* is kept in the *pit* of *puta*, containing *vanopala* (cowdung cakes), and ignited. After *svanga shita* (self-cooling), the *sharava samputa* is taken out and the baked discs are removed and powdered. This whole process makes one *puta*. It is repeated for several times to obtain the *bhasma*, at the end.

Mrita : Literally dead. That which has undergone the process of *marana*. (See *marana*)

Murcchana : Swooning. A process in which one or more drugs or substances are combined with *parada*, with the help of various processes, to enable it (mercury) to eradicate the diseases and act as *rasayana*. Such a *parada* is called *murcchita parada*. The whole operation is called *murcchana*. It is said that, the *parada*, in its *murchita* state, looses its natural properties like mobility and becomes light. *Kajjali, rasasindura, mugdharasa, rasapushpa* etc. are some of the states of *murcchana* of *parada*. They are stated to be highly effective in various diseases.

Musha : Crucible. They are specifically prepared crucibles,

used in various operations. They are prepared with mixture of various materials and are of different types. (See chapter 10)

Ojas : Vitality, vigor, bodily strength, supposed to be the essential productivity of all seven body tissues (*dhatus*).

Panchalavana : See *lavana* in chapter 10.

Panchanga : Five parts of a plant. Generally, it means five parts viz., root, stem, leaves, flowers and fruits of a plant. However, this term indicates the whole plant, preferably the herb (small plant). The whole plant is taken for medicinal and pharmaceutical purpose.

Prakshepa : To put into. A substance (like powder of a herb or ghee, honey etc.) put into another substance, preferably in a liquid or *bhasma* etc.

Rajoguna : One if the three basic human natures, i.e. *sattva, rajas* and *tamas*. *Rajas* indicates the aggressive dynamic nature.

Rasa : A synonym of *parada*, i.e. the mercury. Also taste. There are six kinds of tastes considered in Ayurveda, i.e. *madhura* (sweet), *amala* (sour), *lavana* (salty), *katu* (pungent), *tikta* (bitter) and *kashaya* (astringent).

Rasabandhana : The process of immobilisation of mercury. With the help of various operations and substances, the mobility of mercury is arrested. In this state, *parada* is said to gain medicinal qualities and can achieve wonders.

As a matter of fact, much of the description in classics, pertains to this *rasabandhana*, because, it is belived that, only the immobilised *parada* can eradicate the diseases and work wonders like thwarting senility and even makes the man immortal. It can also achieve the *loha siddhi*. There are twenty seven types of *Rasabandhas* described in Rasashastra.

Rasasiddhi : An achievement of powers by controlling *rasa*, the mercury. In fact the *rasasiddhi* is said to be the utimate goal of Rasashastra, the science of mercury. (Also see *rasabandhana*)

Rasayana : Rejuvenation. That which regenerates vitality by improving the body tissues, thus preventing the old age and prolonging life span.

Sadharana Rasa : Common mineral drugs, in other words they are comparatively less important than *maharasa* and *uparasa*, and said to be less useful in mercurial processes. The *sadharana rasas* are also eight in numbers, they are *kampilla, gouripashana, navasadara, kaparada, vahnijara* (or *agnijara*), *girisindura, hingula* and *mriddarashringa*.

Samskara : Specific processes like *shodhana, marana sattvapatana* etc. However, the *ashta samskara* is referred to the specific purificatory processes of mercury. The *ashtadasha* (eighteen) *samskaras*, which include the above *ashta* (eight) processes, and said to be performed on mercury in order to achieve both *lohsiddhi* and *dehasiddhi*.

Sandhi bandhana : Sealing of a joining parts in various instruments which are used in various processes like *shodhana, marana* etc. The sealing can be done with the help of strips of cloth soaked in the mud or by the mixture, prepared by grinding the lime and *mandura* (iron oxide), in *phanita* (molasses) and buffalo's milk or in decoction of *babbula*. This mixture is called *toyamritika*. This is said to be water proof.

Sannipata : Morbidity. The group of grave symptoms in disease, caused by the vitiation of all the three *doshas*. The condition is far more serious, when compared to the disease caused by a single *dosha*.

Sattva : *Sattva*, generally is the metallic extract of an ore or compound. The process is called *sattvapatana*. The *sattva* may be a single metallic extract or a mixture (compound) of more than one metal. Generally, the *sattvapatana* is carried out by heating the ore intensely in a furnace or kiln, after grinding it with the drugs of *dravaka varga (guda, guggulu, gunja, ghrita, madhu* and *tankana*). The *sattva* thus extracted is again subjectecd to *shodhana* and *marana* and the *bhasma*, thus obtained is supposed to be more potent than the *bhasma* of original ore or compound.

Sattvapatana : See *sattva*.

Sharava samputa : An earthen casket made of two concave shaped earthen bowls, sealed at the joining periphery by mud or other sealing material. This casket is commenly used in the process of *marana*. (See *sandhibandhana, marana*).

Shishyopanayana : Tutelage, apprenticeship. To accept one as a disciple.

Shodhana : Literally purification. Minerals, basically are impure, i.e not fit for internal administration. They contain many impurities-toxins and may cause many untoward effects in the body. In order to neutralise these toxins, the minerals are subjected to many purificatory measures in which, many a times, physical and chemical impurities are removed at the same time neutralising the toxins. Also, these processes help in potentising the minerals, as many medicinal herbs are used during these processes.

A specific *shodhana* process is prescribed for a specified mineral or metal.

Tridosha : Three *doshas*. *Dosha* is a physiological entity, which is said to be basic material, force. They are three in number, viz. *vata, pitta* and *kapha*. The *Vata* is responsible for all the sensory and motor activity in the body. The *pitta* is responsible for endocrine system, digestive activity, body temperature etc. The last one, *kapha* is ascribed with anabolic activity in the body. When all the three *doshas* are in equilibrium condition, the physical and mental health is maintained. This equilibrium, when disturbed, they cause diseases.

Uparasa : Secondary mineral drugs. In other words, they are next to *maharasa* in their utility, in mercurial operations. The *uparasa* are eight in number, viz. *gandhaka, gairika, kasisa, kankshi, tala* (*haratala*), *manahshila, anjana* and *kankushtha*.

Vajikarana : A therapy which enhances the sexual power. The drugs used in such therapy are called *vajikara*. Literally *vajikarana* means, acquiring the hightened sexual vigour, like that of a horse.

Vanopala : Cowdung cakes. Actually, they are cakes, naturally available in the grazing area, where cows graze. The dung excreted by the cows, dry there alone and picked later and used as *vanopala.*

Vipaka : The state of food after completion of the digestion. This activity builds up the body constituents. Commonly it is of three types, viz. *madhura* (sweet), *amla* (sour) and *katu* (pungent), nourishing *kapha*, *pitta* and *vata* respectively.

Virya : Potency. Active principle of a drug by which it acts. Commanly, two types of *virya* are considered, viz. *ushna* (hot) and *shita* (cold). *Virya* also indicates the semen.

Vrishya : The drugs which improve the sexual power. (See *Vajikarana*)

Yogavahi : A substance which enhances the effect of other drug, when used along with, without loosing its own properties. (e.g. mercury, honey etc.)

2

Glossary of Mineral Drugs

अग्निजार	-	Amber, ambergris
अञ्जन	-	Collyrium (compound of antimony, lead, zinc etc.)
अद्रिगज	-	Mineral pitch Compound of many organic-inorganic material
अभ्रक	-	Mica
कङ्कुष्ठ	-	Ruhbard
कपर्दिका	-	Cowri
कम्पिल्ल	-	Mellotus phillipinesis
कर्पूर शिलाजतु	-	Salt pitre, potassium nitrate
काङ्क्षी	-	Alum
कांस्य	-	Bronze
कासीस	-	Ferrous sulphate
काललवण	-	Compound of sodium chloride, sodium sulphate, iron and sulphur
खर्पर	-	Calamine (zinc compound)
गन्धक	-	Sulphur
गिरिसिन्दूर	-	Red oxide of mercury
गैरिक	-	Red ochre (iron compound)
गोमेद	-	Zircon
गौरीपाषाण	-	Arsenic oxide
घोष	-	Bronze
चन्द्रकान्त	-	Moon stone
चपल	-	Bismuth ore
टङ्कण	-	Borax

ताल	–	Orpiment
ताम्र	–	Copper
तार्क्ष्य	–	Emerald
तुत्थ	–	Copper sulphate
तुवरी	–	Alum
नवसादर	–	Ammonium chloride
नाग	–	Lead
नीलमणि	–	Saphire
पारद	–	Mercury
पित्तल	–	Brass
पुष्पराग	–	Topaz
प्रवाल	–	Coral
बिडलवण	–	Ammonium chloride ?
मण्डूर	–	Iron oxide
मन:शिला	–	Realgar
मरकत	–	Emerald
माक्षिक	–	Chalco pyrite (copper pyrite)
माणिक्य	–	Ruby
मृद्दारशृङ्ग	–	Litharge (lead oxide)
मुक्ता	–	Pearl
मुक्ताशुक्ति	–	Pearl shell
यशद	–	Zinc
रजत	–	Silver
रस	–	Mercury
रसक	–	Zinc ore
राजावर्त	–	Lapis lazuli
रौप्य	–	Silver
लोह	–	Iron
वङ्ग	–	Tin
वज्र	–	Diamond
वराटिका	–	Cowri
वर्तलोह	–	Bell metal ?

विमल	–	Iron pyrite
वैक्रान्त	–	Tourmaline ? Manganese ?
वैडूर्य	–	Cat's eye
शङ्ख	–	Conch
शिलाजतु	–	Compound of many organic/inorganic material
सस्यक	–	Peacock ore/copper sulphate
सामुद्रलवण	–	Comman salt
सुवर्ण	–	Gold
सूर्यकान्त	–	Sun stone
स्फटिक मणि	–	Rock crystal
सोमल	–	Arsenic trioxide
सैन्धव लवण	–	Rock salt
सौवर्चल लवण	–	Compound of sodium chloride, Sodium sulphate, iron and sulphur
हरताल	–	Orpiment
हिङ्गुल	–	Cinnabar
हीरक	–	Diamond

3

Glossary of Medicinal Plants

अङ्कोल	–	Alangium salvifolium
अम्बष्ठा-पाठा	–	Cissampelos pareira
अगस्त्य	–	Sesbenia grandiflora
अग्नि	–	*See* चित्रक
अग्निकर्णिका	–	—
अग्निमन्थ	–	Premna latifolia
अजमोदा	–	Carum roxburghianum
अतसी	–	Linum usitatissimum
अपराजिता	–	Clitoria ternatea
अपामार्ग	–	Achyranthus aspera
अमृता	–	Tinospora cordifolia
अमृताकन्द	–	Tinopara malabarica
अम्लपर्णी	–	Vitis carnosa
अम्लवेतस	–	Garcinia pedunculata
अम्लिका	–	Tamarindus indica
अर्क	–	Calotropis procera
अर्जुन	–	Terminalia arjuna
अश्वकर्ण	–	Dipterocarpus turbinatus
अश्वगन्धा	–	Withania somnifera
अश्वत्थ	–	Ficus religiosa
अलाबु	–	Laganeria siceraria
अक्ष	–	*See* बिभीतक
अक्षीव	–	*See* शिग्रु
आखुपर्णी	–	Ipomoea reniformis
आटरूष	–	*See* वासा

आमलकी	–	Emblica officinalis
आम्र	–	Mangifera indica
आरग्वध	–	Cassia fistula
आर्द्रक	–	*See* शुण्ठी
आसुरी	–	*See* सर्षप
इन्द्रवारुणी	–	Cirullus colocynthis
इक्षु	–	Saccharum officinarum
उत्तरवारुणी	–	*See* इन्द्रवारुणी
उत्तमकन्यका	–	—
उत्पल	–	See कमल
उदुम्बर	–	Ficus glomerata
उन्मत्त	–	*See* धत्तूर
एरण्ड	–	Ricinus communis
एला	–	Elettaria cardamomum
कङ्गु	–	Setaria italica
कङ्गुक	–	*See* कङ्गु
कङ्गुणिका	–	*See* ज्योतिष्मती
कट्फल	–	Myrica esculenta
कटुकर्कारु	–	—
कटुतुम्बी	–	*See* अलाबु
कटुकालाबु	–	*See* अलाबु
कटुवार्ताक	–	*See* वृन्ताक
कठिल्ल	–	*See* पुनर्नवा
कणा	–	*See* पिप्पली
कण्टकारी	–	Solanum xanthocarpum
कतक	–	Strychnos potatorum
कदली	–	Musa paradisiaca
कनक	–	*See* धत्तूर
कन्दुक	–	—
कन्या	–	*See* कुमारी
कपिकच्छु	–	Mucuna prurita
कपित्थ	–	Foronia limonla

कमल	–	Nelumbo nucifera
कम्बुकी	–	A variety of आरग्वध
करवीर	–	Nerium indicum
करञ्ज	–	Pongamia pinnata
करवन्द	–	Carrissa cardandas
करीर	–	Capparis decidua
कर्कटी	–	Cucumis utilissimus (कर्कटी)
कर्कारु	–	A variety of कूष्माण्ड
कर्कोटी	–	Momordica dioica
कर्णिकार	–	See आरग्वध
कर्पूर	–	Cinnamomum camphora
कर्पूर गन्धिनि	–	—
कलाय	–	Lathyrus sativus
कालिङ्ग	–	*See* कुटज
कशेरुक	–	Scirpus grossus
काकजङ्घा	–	Peristroph bicalyculata or Leea acquata
काकतुण्डी	–	Asclepias curassavica
काकोदुम्बर	–	Ficus hispida
काण्डवल्ली	–	—
काम	–	Artemisia vulgaris
कारवेल्लक	–	Momordia charantia
कालकूट	–	A vegetable poision
काली	–	—
कासमर्द	–	Cassia occidentalis
किंशुक	–	*See* पलाश
किराततिक्त	–	Swertia chirayita
कुचला	–	Strychnos nuxvamica
कुटज	–	Holarrhena antidysenterica
कुन्द	–	Jasminum miltiflorum
कुपीलु	–	*See* कुचला
कुमारी	–	Aloe vera
कुम्भी	–	Coreya arborea (जलकुम्भी)

कुरण्टक	–	*See* सैरेयक
कुलत्थ	–	Dolichos biflorus
कुष्ठ	–	Saussurea lappa
कुस्तुम्भ	–	Carthamus tinctorius
कूष्माण्ड	–	Benincasa hispida
केतक	–	Pandanus odorotissimus
कोकिलाक्ष	–	Asteracantha longifolia
कोद्रव	–	Paspalum scrobiculatum
कोल	–	Zizyphus jujuba
कोश	–	*See* कोशातकी
कोशातकी	–	Luffa acutangula
कैन्ति	–	*See* हरेणु
खदिर	–	Acacia catechu
खर्जूर	–	Phoenix sylvestris
खरमञ्जरी	–	*See* अपामार्ग
गुञ्जा	–	Abrus precatorius
गुग्गलु	–	Commiphora mukul
गोधूम	–	Triticum aestivum
गोक्षुर	–	Tribulus terrestris
गुहकन्धा	–	*See* कुमारी
घोषा	–	*See* शतपुष्पा
चणक	–	Cicer arietinum
चक्रमर्द	–	Cassia tora
चन्द्र	–	*See* कर्पूर
चन्द्रावती	–	*See* बाकुची
चाङ्गेरी	–	Oxalis corniculata
चिञ्चा	–	*See* अम्लिका
चुक्रिका	–	Remex vesicarius
चुल्लिका	–	—
जटा	–	*See* जटामांसी
जन्तुघ्न	–	*See* विडङ्ग
जम्बीर	–	Citrus limon

जयन्ती	–	Sesbenia sesban
जम्बु	–	Syzygium cumini
जया	–	*See* भंगा
जयपाल	–	Croton tiglium
जातीफल	–	Myrisitca fragrans
जालिनी	–	*See* कोषातकी
जीमूतक	–	*See* देवदाली
जीरक	–	Cuminum cyminum
जीवन्तिका	–	Laptadenia reticulata
जीवन्ती	–	*See* जीवन्तिका
ज्योतिष्मती	–	Celastrus panniculatus
ज्वालामुखी	–	*See* भल्लातक
तगर	–	Valeriana wallichii
तण्डुलीय	–	Amaranthus spinosus
तरुणी	–	Rosa centifolia
ताम्बूल	–	Piper bettle
तिक्त तुण्डीर	–	—
तिन्तिडीक	–	Rhus perviflora
तिन्दुक	–	Diospyros tomentosa
तिल	–	Sesamum indicum
तिलपर्णी	–	Gynandropis gunandra
तिल्वण	–	*See* लोध्र
तीक्ष्ण	–	*See* मरिच
तुण्डिकेरी	–	Coccinia indica
तुम्बरु	–	Zanthoxylum alatum
तुम्बिनी	–	Lageneria siceraria
तुवरक	–	Hydnocarpus wightiana
तुलसी	–	Ocimum sanctum
तेजपत्र	–	Cinamomum tamala
तेजिनी	–	*See* ज्योतिष्मती
त्रिकटु	–	*See* शुण्ठी, मरिच, पिप्पली
त्रिकण्टक	–	*See* गोसुर

त्रिफला	–	*See* आमलकी, हरीतकी, बिभीतक
त्र्यूषण	–	*See* त्रिकटु
त्वक्	–	Cinnamonum zeylanicum
दन्ती	–	Baliosopermum montanum
दाडिम	–	Punica granatum
दुग्धिका	–	*See* पयस्या
दूर्वा	–	Cynodon dactylon
देवदाली	–	Luffa echinata
द्राक्षा	–	Vitis vinifera
द्रवन्ती	–	Jatropha glandulifera
द्रोणपुष्पी	–	Leucas cephalotes/aspera
धत्तूर	–	Datura metel
धव	–	Anogeissus latifolia
धवतिक्त	–	*See* धव
धात्र	–	*See* आमलकी
धान्यक	–	Coriandrum sativum
नल	–	Arundo donex
नाकुली	–	सर्पगन्धा
नागकेशर	–	Mesua ferrea
नागर	–	*See* शुण्ठी
नागवल्ली	–	*See* ताम्बूल
नारङ्ग	–	Citrus reticulata
नारिकेल	–	Cocos nucifera
निकुम्भ	–	*See* दन्ती
निम्ब	–	Azadirachta indica
निम्बुक	–	Citrus aurantifolia
निर्गुण्डी	–	Vitex nigundo
निशा	–	*See* हरिद्रा
निष्पाव	–	Dolichos lablab
नीलज्योति	–	*See* अपराजिता
नीलक	–	—
नीलिनी	–	Indigofera tinctoria

नीली	–	*See* नीलिनी
नीलपार्णिका	–	—
न्यग्रोध	–	*See* वट
पञ्चाङ्गुल	–	*See* एरण्ड
पटेल	–	Trichosanthes dioica
पत्रक	–	—
पथ्या	–	*See* हरीतकी
पयस्या	–	Holostemma rheedianum
पलाश	–	Butea monosperma
पाठा	–	Cissampelos pareira
पाताली	–	Cocculus hirsutus
पिप्पल	–	*See* अश्वत्थ
पिप्पली	–	Piper longum
पीतविष	–	—
पीलु	–	Salvadora persica
पुनर्नवा	–	Boerhaavia diffusa
पुनर्भुव	–	*See* पुनर्नवा
पुष्करबीज	–	—
पुष्करमूल	–	Inula racemosa
पुङ्खिका	–	*See* शरपुङ्खा
पेटकारी	–	*See* ज्योतिष्मती
फणिनेत्रा	–	सर्पाक्षि
बदर	–	Ziziphus jujuba
बन्धुजीव	–	*See* बन्धूक
बब्बूल	–	Acacia arabica
बन्धूक	–	Pentapetes phoenicca
बाकुची	–	Psoralia corylifolia
बालाम्र	–	*See* आम्र
बाह्लीक	–	*See* हिङ्गु
बिभीतक	–	Terminalia bellirica
बिम्बी	–	Coccinia indica
बिल्व	–	Aegle marmelos

बीजपूर	–	Citrus medica
बोधिवृक्ष	–	*See* अश्वत्थ
बृहति	–	Solanum indicum
ब्रह्मदण्डि	–	Tricolepsis glaberrima or Echinofera echinatus
ब्रह्मबीज	–	Amberae divariculata
ब्रह्ममूल	–	*See* पलाश
ब्राह्मी	–	Bacopa monnieri
भङ्गा	–	Cannabis sativam
भल्लातक	–	Semicarpus anacardium
भशुण्डि	–	*See* हस्तिशुण्डि
भारद्वाज	–	*See* वनकार्पास
भूर्जपत्र	–	Betula utilis
भृङ्गराज	–	Eclipta alba
मगधा	–	*See* पिप्पली
मञ्जिष्ठा	–	Rubia cordifolia
मदनफल	–	Randia dumetorum
मदन	–	*See* मदनफल
मदा	–	—
मधुयष्टि	–	*See* यष्टिमधु
मधुक	–	*See* यष्टिमधु
मधूक	–	Madhuca indica
मण्डूकपर्णी	–	Centella asiatica
मयूर	–	*See* अपामार्ग
मयूरशिखा	–	Adiantum caudautum
मत्स्याक्षि	–	Alternathera sessillis
मर्कटि	–	*See* कपिकच्छु
मसूर	–	Lens culinaris
महाकाली	–	*See* सर्षप
महाराष्ट्रि	–	*See* कण्टकारि
महाराज गिरि	–	अश्वगन्धा
महिषीकन्द	–	—

मांस	–	अम्लवेतस
मांसी	–	*See* जटामांसी
मातुलुङ्ग	–	*See* बीजपूर
मालकाङ्गुणि	–	*See* ज्योतिष्मती
मार्कव	–	*See* भृङ्गराज
माष	–	Phaseolus mungo
माषपर्णि	–	Teramnus labialis
मीनाक्षि	–	*See* मत्स्याक्षि
मुण्डी	–	Sphaeranthus indicus
मद्ग	–	Phaseollus radiatus
मुनिमत्र	–	*See* आरग्वध
मुद्गपर्णी	–	Phaseolus trilobus
मुशली	–	Asperagus adscendens
मुस्तक	–	Cyperus rotundus
मूलक	–	Raphanus sativus
मृगदूर्वा	–	*See* दूर्वा
मृद्वीक	–	*See* द्राक्षा
मेघनाद	–	*See* तण्डुलीय
मेषशृङ्गी	–	Gymnema sylvestre
मोचरस	–	*See* कदली
मोरट	–	Maerna arenaria
मोक्षक	–	*See* मुष्क
यव	–	Hordeum vulgare
यष्टिमधु	–	Glycyrrhiza glabra
यक्ष	–	Vateria indica
रक्तचन्दन	–	Pterocarpus santalinus
रक्तशालि	–	*See* शालि
रक्ताभ	–	*See* मञ्जिष्ठा
रजनी	–	*See* हरिद्रा
रम्भा	–	*See* कदली
रवि	–	*See* अर्क
रसपत्रिका	–	*See* चुक्रिका

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राजिका	–	Brassica juncea
रात्रि	–	*See* हरिद्रा
रामठ	–	*See* हिङ्गु
राल	–	Shorea robusta
रास्ना	–	Alpenia galanga/Pluchca lanceolata
रेणुक	–	*See* हरेणु
लकुच	–	Artocarpus lakoocha
लज्जालु	–	Mimosa pudica
लशुन	–	Allium sativum
लक्ष्मणा	–	Remusatia vivipara
लाङ्गली	–	Gloriosa superba
लुङ्गा	–	*See* मातुलङ्ग
लोचन	–	—
लोध्र	–	Symplocos racemosa
वंश	–	Bambusa arundinacea
वचा	–	Acorus calamus
वज्रकन्द	–	Amorphallus sylvestrius or Plesmonium margaratiferum
वज्रवल्ली	–	*See* वज्रकन्द
वट	–	Ficus bengalensis
वत्सनाभ	–	Aconitum ferox
वन्ध्या	–	*See* कर्कोटकी
वनकर्कोट	–	—
वरवर्णी	–	*See* ज्योतिष्मती
वरा	–	त्रिफला
वर्णपुष्पी	–	लांगली
वरुण	–	Crataeva nurvala
वर्षाभू	–	*See* अपामार्ग
वसुभल्लक	–	—

वह्नि – *See* चित्रक
वाराहीकन्द – Dioscorae bulbifera
वाराही – *See* वराहीकन्द
वार्ताकु – Solanum melongena
वासा – Adhatoda vasica
वास्तूक – Chenopodium album
विजया – *See* भंगा (also हरितकी)
विडङ्ग – Embelia ribes
विशाला – Trichosanthus palmata
विश्व – *See* शुण्ठि
विष – *See* वत्सनाभ
विषतिन्दुक – *See* कुचला
विष्णुक्रान्ति – Clitoria ternata
वेतसाम्ल – *See* अम्लवेतस
वेत्र – Calamus tenuis
वेणु – *See* वंश
वृन्ताक – *See* वार्ताकु
व्रणघ्नि – —
वृश्चिकाली – Pergularia extensa
व्रिन्तिका – *See* मुद्गपर्णि
व्याघ्री – *See* कण्टकारी
व्याघ्रीपदि – —
व्योष – *See* त्रिकटु
व्रीहि – *See* शालि
शङ्खपुष्पी – Convolvulus pluricaulis
शङ्खिनी – Colonyction muricatum
शण – Crotalaria juncea
शतपुष्पा – Peucedanum graveolens
शतावरी – Asparagus recemosus
शताह्वा – *See* शतपुष्पा
शमी – Prosopis cineraria
शम्पाक – *See* आरग्वध

शशिलेखा – *See* बाकुची
शशिलता – *See* सोमलता
शाली – Oryza sativa
शालपर्णी – Desmodium gangeticum
शाल्मली – Salmalia malabarica
शिखि – *See* चित्रक
शिखिशिखा – *See* मयूरशिखा
शिग्रु – Moringa pterygosperma
शिम्बी – Phaseolus lunatus
शिंशिपा – Dalbergia sissoo
शिरीष – Albizzia lebbeck
श्यामा – त्रिवृत्
शुण्ठी – Zingiber officinale
शैर्यक – Bataria species (हंसपद)
शोभाञ्जन – *See* शिग्रु
शृङ्गवेर – *See* आर्द्रक
शृङ्गाटक – Trapa bispinosa
शृङ्गीक – A variety of वत्सनाभ
श्रावणी – *See* मुण्डी
श्रीफल – *See* बिल्व
श्रीदेवी – *See* तुलसी
श्लेष्मातक – Cordia dichotoma
श्वदंष्ट्रा – *See* गोक्षुर
श्वेत सर्षप – *See* सर्षप
श्वेत गुञ्जा – *See* गुञ्जा
श्वेतार्क – *See* अर्क
सदापुष्प – Lachneru rosea or Vinca rosea
सप्तचक्र – Salacia chenesis
सप्तपर्ण – Alstonia scholaris
सप्तरङ्गी – Casearia esculanta
सरल – Pinus longifolia or Pinus roxburghii
सर्जरस – Vateria india

सर्पगन्धा	–	Rauwfolia serpentina
सर्पाक्षी	–	Polygonum plebejum
सर्षप	–	Brassica campestris
समङ्गा	–	*See* लज्जालु
सहदेवी	–	Vernomia cineria
सहचरा	–	*See* सैरेयक
सहस्रवेधि	–	Ferula narthex
सातल	–	Acacia concinna
सारिवा	–	Hemidesmus indicus
सिन्धुरी	–	Vitex trifolia
सिन्धुवार	–	Liquidamber orientalis
सिलहक	–	Liquidamber orientalis
सिंही	–	*See* वासा
सिंहतुण्ड	–	Euphorbia nerifolia
स्थिरा	–	*See* शालपर्णी
सीताफल	–	Annona squamosa
सुगन्धा	–	*See* रास्ना
सुदर्शन	–	Crinum latifolium
सुषवी	–	—
सुरपुन्नाग	–	Mammea longifolia
सुरसा	–	Ocimun sanctum
सूरण	–	Amorphophallus companulatus
सूर्यमुखी	–	—
सूर्यावर्न	–	Gyanandropis pentaphylla
सूक्ष्मा	–	Elettaria cardamomum
सैरेयक	–	Barleria prionitis
सोम	–	Ephedra gerardiana
सोमलता	–	Ephedra gerardiana
सोमराजि	–	Psoralia corillifolia
सोमवल्ली	–	*See* सोमलता
स्नुही	–	Euphorbia neriifolia
स्पृक्का	–	Trifolium officinalis

स्राविका	–	Claviceps purpuria
स्वर्णक्षीरी	–	Argumone mexicana
स्वर्णवल्ली	–	—
स्वर्णपत्री	–	Cassia angustifolia
स्वणपुष्पी	–	—
स्वादुपर्णी	–	Euphorbia pileliufera
हपुषा	–	Juniperus communis
हरदा	–	Adina cordifolia
हरिद्रा	–	Carcuma longa
हरिद्रु	–	Adina cordifolia
हरीतकी	–	Terminalia chebula
हंसपादी	–	Adeantum venustum
हसिकर्ण	–	Adeantum lunulatum
हस्तिभुण्डी	–	—
हिङ्गु	–	Ferula narthex or Ferula alliacea
हिङ्गुपत्री	–	Corchorus antichorus
हिज्जला	–	Barringtonia acuntangula
हिममीचिका	–	Enhydra flanctuns
ह्रीवेर	–	Pavonia odorata
हैमवती	–	Irisen sata
क्षुद्राम्र	–	Schleichera oleosa
क्षीरी	–	Memusops hexandra

4
Glossary of Diseases

अग्निमान्द्य	–	Diminished digestive power
अजीर्ण	–	Indigestion
अतिसार	–	Diarrhoea
अपस्मार	–	Epilepsy
अम्लपित	–	Hyperacidity, gastritis
अरुचि	–	Loss of taste
अर्श	–	Piles, heamorrhoids
अर्बुद	–	Carcinoma
अश्मरी	–	Calculus
आध्मान	–	Flatulence
आमवात	–	Painful, swollen joints rheumatism
उदर रोग	–	Abdominal disorders
उन्माद	–	Mania
उरक्षत	–	Pulmonary lesion
कण्डू	–	Itching
कर्णरोग	–	Diseases of the ear
कामला	–	Jaundice
कास	–	Cough
कृमि	–	Helmenth
कुष्ठ	–	Skin diseases, leprosy
गलगण्ड	–	Scrofula
गण्डमाला	–	Internal abscess
ग्रहणी	–	Sprue
गृध्रसी	–	Sciatica

छर्दि	–	Vomiting
जीर्ण ज्वर	–	Chronic fever
ज्वर	–	Pyrexia, fever
त्वक् रोग	–	Skin diseases
तृष्णा	–	Thirst
दद्रु	–	Urticaria
दाह	–	Burning sensation
नपुंसकता	–	Impotency
नासारोग	–	Diseases of the nose
निद्रानाश	–	Insomnia
नेत्ररोग	–	Diseases of the eye
पलित	–	Graying of hairs
पाण्डु	–	Anaemia
पूयमेह	–	Gonorrheoa
प्रतिश्याय	–	Coryza
प्रमेह	–	Polyuria-diabetes mellitus
प्रवाहिका	–	Dysentary
फिरङ्ग	–	Syphilis
भगन्दर	–	Fistula
बहुमूत्र	–	Polyuria
मदात्यय	–	Alcoholism
मन्दाग्नि	–	Diminished digestive power
मलावरोध	–	Constipation
मसूरिका	–	Small pox
मुखरोग	–	Diseases of the buccul cavity
मूत्रकृच्छ्र	–	Dysuria
मूत्राघात	–	Anuria
मूर्च्छा	–	Syncope
मोह	–	Delusion
मेदोरोग	–	Obesity
योनिरोग	–	Gynaecological disorders
रक्तप्रदर	–	Uterine bleeding

वातरक्त	–	Gout
विषविकार	–	Poisoning
विसूचिका	–	Cholera
विसर्प	–	Erysipales
वृद्धि	–	Hernia
व्रण	–	Wound
विद्रधि	–	Abscess
विबन्ध	–	Constipation
शिरोरोग	–	Diseases of the head
शीतपित्त	–	Urticaria
शूल	–	Pain in the abdomen
शोथ	–	Oedema
श्वास रोग	–	Asthma
श्वेत कुष्ठ	–	Leucoderma
श्लीपद	–	Elephantiasis
स्फोट	–	Boils
स्वरभेद	–	Hoarseness of the voice
हिक्का	–	Hiccugh
हृद्रोग	–	Cardiac disease
क्षय/राजयक्ष्मा	–	Pthysis, tuberculosis

5
Weights and Measurements

MEASUREMENT OF WEIGHTS

1 *Ratti* or *Gunja*		= 125 mg.
8 *Ratti*	= 1 *Karsha*	= 1 gm.
12 *Masha*	= 1 *Karsha* or *Tola*	= 12 gms.
2 *Tola*	= 1 *Shukti*	= 24 gms.
2 *Shukti*	= 1 *Pala*	= 48 gms.
2 *Pala*	= 1 *Prasruti*	= 96 gms.
2 *Prasruti*	= 1 *Kudava*	= 192 gms.
2 *Kudava*	= 1 *Manika*	= 384 gms.
2 *Manika*	= 1 *Prastha*	= 768 gms.
4 *Prastha*	= 1 *Adhaka*	= 3.073 Kg.
4 *Adhaka*	= 1 *Drona*	= 12.288 Kg.
2 *Drona*	= 1 *Surpa*	= 24.576Kg.
2 *Surpa*	= 1 *Droni*	= 4.152 Kg.
4 *Droni*	= 1 *Bhara*	= 196.608 Kg.
100 *Pala*	= 1 *Tula*	= 4.800 Kg.
20 *Tula*	= 1 *Bhara*	= 96 Kg.

LINEAR MEASURES

Yavodara	= 1/8 of 3/4 inches	= 0.24 cms.
Angula	= 3/4 inch	= 1.96 cms.
Vitasti	= 9 inches	= 22.86 cms.

Aratni	= 10 ½ inches	= 41.91 cms.
Hasta	= 18 inches	= 45.72 cms.
Rajahasta or *Nripahasta*	= 22 inches	= 55.88 cms.
Vyama	= 72 inches	= 182.88 cms.

MEASUREMENT OF TIME

2 *Kshana*	= 1 *Lava*	
2 *Lava*	= 1 *Nimesha*	
3 *Nimesha*	= 1 *Kashtha*	= 4.66 secs.
	1 *Ghati*	= 24 mts.
30 *Kastha*	= 1 *Kala*	= 2 mts, 20 secs.
	1 *Mahurta*	= 48 mts.
30 *Muhurta*	= 1 *Ahoratra*	= 24 hours
1 *Yama*	= 1 *Prahara*	= 3 hours

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